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**THE ~~THIRD~~ QUADRENNIAL
REVIEW OF MILITARY
COMPENSATION** (C-1)

**STAFF STUDIES
and selected supporting papers.**

Volume X .

TOTAL COMPENSATION SETTING

January 1977

Department of Defense

Third Quadrennial Review of
Military Compensation

Office of the Secretary of Defense



PREFACE

The research papers in this final volume of the Staff Studies of the Third Quadrennial Review of Military Compensation were developed to provide a blue print for implementation of a military compensation system of the future. They are based on the compensation system recommendations of the QRMC, and incorporate the additional recommendations and the techniques of the QRMC Staff described in the previous volumes, to complete the system.

These studies were completed by the nucleus of the QRMC Staff remaining after the QRMC had concluded its deliberations:

Mr. Douglas D. McCormick, LCol C. S. Naatjes, USA, and Mr. Charles W. Malphurs, with assistance of CDR Norman A. Mayo, USN, and Mr. Peter K. Ogloblin.

The QRMC proposed a modernized pay and allowances system incorporating the major elements of pays and benefits in a total compensation system. This system would use a pay standard based on work level linkages to the Federal Civil Service compensation system, and would include explicit recognition of the Military Factor¹-- the net differences between conditions of military service and conditions of civilian employment.

One paper was developed to demonstrate the policy implications of putting into effect a modernized form of the present military pay and allowances system in which pay is linked to Civil Service pay to provide the military pay standard. The recommended standard and each of several other possible standards creates a different payline which achieves a different degree of competitiveness in the manpower market and in turn influences the system of bonuses and special pays used to fine tune its competitiveness in higher paid skills. Two such paylines are illustrated in the paper.

During the course of the quadrennial review, the administration initiated steps toward a rental system for military housing. Because of the likelihood that a rental system would alter the non-taxable nature of the quarters allowance, and because a fully taxable system appeared to overcome some of the disadvantages of the current pay and allowances system, the Staff prepared a paper on creation of a pay and allowances system with taxable basic

allowances. A third paper was prepared to explore establishing a military pay system in salary form because this major alternative has been the subject of strongest disagreement in recent studies of military compensation. The three papers were organized in similar fashion to simplify comparison between the various pay systems.

The final paper presents a way of putting the total compensation concept into operation considering current capabilities in the public and private sectors for measuring the comparability of fringe benefits. Taken together these papers demonstrate the conclusions of the QRMC Staff that the compensation-setting methods can support but cannot substitute for management judgement, and that much evolutionary development would be needed before a total compensation setting and adjusting process could be relegated to routine application of an econometric formula.

These staff studies represent the kind of work that will have to be done to manage total military compensation in an integrated way. They have not been judged by or modified for the QRMC. They represent the views of the QRMC Staff; their publication does not imply approval or endorsement by the Department of Defense.

All of the papers published by the Quadrennial Review of Military Compensation may be reproduced and disseminated without further authorization. Additional copies, beyond those initially distributed, may be purchased, by volume, from the Government Printing Office, Washington, D. C.

J. R. Talbot
Captain, USN
Staff Director
Third QRMC

WASHINGTON, D. C.
January, 1977

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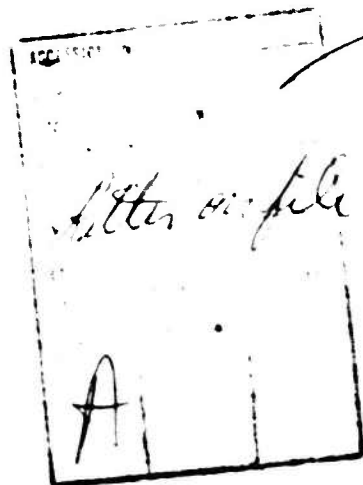
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QRM C STAFF

Staff Director

CAPT James B. Campbell, USN
CAPT James R. Talbot, USN

Jan 1975 - Jul 1975
Jul 1975 - Completion

Task Group Leaders

CDR Harold J. Arensmeyer, Jr., USNR
LTC Robert M. Berg, USAF
Mr. Robert A. Hallex, USN
CDR Norman A. Mayo, USN
LTC Clarence S. Naatjes, USA
Mr. Peter K. Ogloblin, OSD

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Mar 1975 - Aug 1976
May 1975 - Jul 1976
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Jan 1975 - Apr 1975
Apr 1975 - Jul 1976
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Jan 1975 - Completion
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Jul 1975 - Aug 1976
Jul 1975 - Sep 1976
Mar 1975 - Sep 1976
Jan 1975 - Nov 1975
Apr 1975 - Sep 1976
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Apr 1975 - Jul 1976

Administrative Assistant

MAJ Terry G. German, USMC
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Jan 1975 - May 1976

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Jan 1975 - Completion

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GLOSSARY OF TERMS

QUADRENNIAL REVIEW OF MILITARY COMPENSATION
WORKING GLOSSARY OF TERMS

July 29, 1975

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15. Vesting
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1. Allowance

An indirect or contingent remuneration which may or may not be earned, and which is sometimes in the nature of compensation and sometimes in the nature of reimbursement.

(Clifford Jones vs. The United States, 60 Ct Cls 552, April 13, 1925)

2. Asterisked Item

An entitlement, service, or advantage to a service member or dependent provided by the Government to recognize unusual working or living conditions peculiar to military service life. For pay comparison purposes, such an entitlement, service, or advantage may be classified as either a compensation item or a non-compensation item, but would not be called a pay or a fringe benefit.

3. Contributory Retirement System

A retirement system whereby a service member contributes periodically an amount of money, which is combined with a matching or other stated multiple amount contributed on the part of the Government, to finance member retirement.

4. Fringe Benefits

A financial advantage to a service member which is a compensation item and is provided as an addition to the military equivalent of civilian salary or wages and to special or premium pays. A specific fringe benefit is not necessarily received by or even available to all service members.

5. Government Incurred Costs

Government incurred costs result from exigencies of the operating requirements of military service which cannot reasonably be considered as payment for work performed.

6. Military Compensation Item

A military compensation item is one that:

- a. Costs the Government money, either directly or indirectly, now or in the future, and

b. Is of value to the recipient, exclusive of reimbursements and certain Government incurred line of duty costs, in one or more of the following ways:

- (1) It adds net cash to his current income,
- (2) It permits him to realize a current net cash saving,
- (3) It creates a present value to him based on the prospect of future receipt, and

c. Is considered compensation by other federal, or government agencies, and in the majority of instances in private industry, and

d. Is measurable.

7. Military Equivalent Salary

A combination or sum of those items of military compensation that are considered the equivalent of civilian salary.

8. Military Salary System

A system of compensation whereby the military equivalent salary is paid entirely in cash and is fully taxable.

9. Non-Compensation Benefit

- a. An advantage to a service member or dependent which, when available, is not an item of compensation, but is provided due to a moral or other obligation of the Government; or
- b. The favorable circumstance resulting from its exercise is either primarily or equally advantageous to the Government; or
- c. Is provided at little or no cost or inconvenience to the Government, but directly enhances morale and well-being of the recipient.

10. Pays and Allowances System

A compensation system comprised of various pays, allowances and benefits provided in cash or in-kind and based upon both remuneration for service performed as well as to fulfill certain and distinct purposes including Government obligation.

11. Regular Compensation or Regular Military Compensation (RMC)

" 'Regular compensation' or 'regular military compensation (RMC)' means the total of the following elements that a member of a uniformed service accrues or receives, directly or indirectly, in cash or in kind each payday: basic pay, basic allowance for quarters, basic allowance for subsistence, and federal tax advantage accruing to the aforementioned allowances because they are not subject to Federal income tax." (37 U.S.C. 101(25))

12. Salary

A fixed periodic sum of taxable cash normally paid in increments as the usual full monetary return for services performed without regard to marital status or family size.

13. Special Pays

Taxable cash pays that depend on special occupational qualifications or duty performance.

14. Total Military Compensation (TMC) or Military Compensation

- a. The sum of all items of compensation that members of the uniformed services accrue or receive, directly or indirectly, in cash or in kind.
- b. The composition of all items of military compensation without regard to the number or type of these items to which any particular member, officer or enlisted, may be entitled.
- c. The sum of military equivalent salary, fringe benefits, and special and premium pays for an individual service member.

15. Vesting

The attainment by a participant of a benefit right, attributable to employer contributions, that is not contingent upon a participant's contribution in specified employment.

(Bulletin of the Commission On Insurance Terminology of the American Risk and Insurance Association - Vol. 1, No. 4.)

16. Vested Liabilities (Public Law 93-406, Sept. 20, 1974)

The present value of the immediate or deferred benefits available at normal retirement age for participants and their beneficiaries which are non-forfeitable.

MODERNIZED MILITARY PAYS AND ALLOWANCES SYSTEM

A Staff Research Paper

Prepared For

The Third Quadrennial Review

Of Military Compensation

15 January 1977

12 Nov 1976
Rev. 30 Nov 1976
Rev. 15 Jan 1977

QUADRENNIAL REVIEW OF MILITARY COMPENSATION

STAFF RESEARCH PAPER

MODERNIZED MILITARY PAY AND ALLOWANCES SYSTEM

I. Purpose: To describe a system to implement the modernized pay and allowances system including pay setting methods, candidate pay-lines and pay tables, and to provide system cost comparisons and transition cost estimates.

II. Introduction:

The 1975 Quadrennial Review of Military Compensation has recommended a modernized pay and allowances system for military personnel, providing for:

- a. A single basic pay scale designed as the principal reward for work and duty;
- b. non-taxable BAQ, set to meet the housing costs experienced by military personnel with and without dependents, when not provided quarters suitable for attained rank;
- c. non-taxable BAS set to meet the food costs experienced by military personnel when not provided rations;
- d. Housing or BAQ for members on sea duty and extended field duty;
- e. A system of bonuses and special and incentive pays to meet personnel requirements in specific skills.

A key feature of the system proposed by the QRMC is that military pay levels are set to a pay standard which provides competitive levels of pay in a comparability based system. The standard will be based on work level linkages with the Federal Civil Service. A number of standards are useable, including linkage to:

- The General Schedule at the nearest whole grade to the work level of the selected military grade.
- The General Schedule at the intergrade work level point equal to the work level of the selected military grade.
- For the enlisted force, the mix of the nearest whole grade in the General Schedule and the Wage Grade (WG) system equal to the mix of white collar and blue collar type skills.
- The intergrade work levels equal to the selected military grade but using the GS/WG mix for the enlisted force. The QRMC selected the first alternative, on the basis of its simplicity and familiarity.

The QRMC considered a number of possible linkage points for setting military paylines. The preference was for two points for each payline: E-3 and E-7 for the enlisted payline, and O-2 and O-6 for the officer payline.

This system contrasts with the current system which is not anchored to any pay standard, although many have thought so because of the matching pay raise procedures that have been used since 1967. A pay and allowances system is especially well suited to the way a military force functions. In many situations the force must be quartered and subsisted at, or in close proximity to, their duties. Allowances must be provided at adequate levels when such is not the case. That means the allowances must be set to meet costs actually experienced by military personnel.

Since a pay and allowance system has different objectives than a salary system, a means is required to select pay equivalencies which recognize work or service equivalencies without distorting the purposes of a pay and allowances system. The Regular Military Compensation (RMC) concept was used for this purpose from 1967 to 1974 to provide military pay increases which matched civilian salary increases. RMC was treated as the military pay and allowances equivalent of civilian salary. Because this system put all of the pay increase into the element of RMC for work and duty performed -- basic pay -- it distorted the resulting RMC and inflated retired pay.

In 1974 RMC was abandoned as the pay increase base and replaced with a system of percentage increases in its cash components only. A definition of RMC was retained in the law, however, for the purposes of

making pay comparisons with civilian salaries. When RMC was the basis for calculating pay raises, the allowance levels were quickly distorted. Under the equal percentage method, basic pay increases kept pace with civilian pay increases. But the allowances increased with civilian pay increases, and this continued to distort them from food and shelter cost changes. RMC could be set equal to a salary standard with the allowances adjusted based on food and housing costs. But basic pay then would become a residual amount, distorted from its intent.

Since these methods are inadequate for pay setting purposes, the QRMC Staff has developed a pay setting technique to meet the following objectives:

- a. Set pay on the basis of equal pay for approximately equal work.
- b. Use civilian salary as the pay standard.
- c. Recognize civilian basic salary as pay for work or service.
- d. Recognize military basic pay as pay for service or duty.
- e. Set the two basic military allowances on the basis of their objectives in a pay and allowance system.

Military Pay Standard. Since the quarters and subsistence allowances are set on different criteria, only the basic pay portion of the pay and allowances system can be linked to a standard derived from linked grade salaries. This is accomplished by deducting from civilian basic salary the expense elements for food and shelter. Since Civil Service basic salary is intended to be comparable to private sector salaries, the

food and shelter offsets can be based on appropriate national data. National data is readily available while civil service data is not. This net salary standard can act as the parity standard for military basic pay after corrections for taxes. At a given linkage, the civilian pays more taxes than the military member because the full civilian basic salary is taxed. Therefore, parity should be established on the portion of the "net salary standard" and military basic pay after a Federal income tax offset is determined in an appropriate manner.

Pay Adjustments. Annual changes in the civilian offsets from civilian salary used in determining the Net Salary Standard will differ from the annual salary increases received by Civil Service employees. This could result in military Basic Pay adjustments which are greater than or less than Civil Service salary increases. It is conceivable that even the need for a decrease in basic pay would be indicated. To prevent this situation and to create stability and simplicity to the pay adjustment process, adjustments to the military pay elements will be made as follows:

- a. Annual military basic pay increases will be the same as the General Schedule increase.
- b. Annual adjustments will be made to the BAQ and BAS rates using annual changes in the BLS indices for housing and food.

c. The distortions from the Net Salary Standard which will result from these annual pay adjustment mechanisms will be corrected at each quadrennial review of military compensation.

Concept Summary. At each linkage grade, the components of the military equivalent of civilian salary can be calculated as follows:

a. Basic pay will be set at parity with a net salary standard determined from civilian basic salary less average civilian shelter and food costs.

b. BAQ and BAS will be set on the basis of appropriate cost criteria. Military personnel experience housing and food expenses that vary substantially from civilian averages. (See Tab A.) Further, the military quarters element distinguishes family status. Therefore, the basis for BAQ and BAS rates is not the same as the basis for shelter and food expense offsets to civilian basic salary for determining the "net salary standard."

c. The result of this pay setting methodology will be a military RMC which will be approximately the same as, but not identical to, civilian basic salary. Its allowance elements will adjust to the expenses for which they are intended. Its pay element will be set based on the civilian basic salary standard and thus respond only to

the movements of pay for work in the economy. The concept is illustrated at Tab B.

III. Determining Housing, Food, and Tax Cost Offsets to Civilian Salary:

a. Civilian Housing Expense. The candidate sources for this data are: the Annual Housing Survey, published by the Bureau of the Census; the General Schedule Employee Housing Cost Survey, taken by the Department of State in the Washington, D. C. area; and a calculation from the Annual Housing Survey and the Bureau of Census Consumer Income Report. By mid 1977 the first source can be used to relate housing expenditures to salary. In the interim the third source is used. See Tab C for a detailed discussion.

b. Civilian Food Cost. The candidate sources for this data are: a Consumer Expenditure Survey, a one-time BLS diary of actual consumption expenditures; the Department of Agriculture Family Food Plan, which is estimates of the cost of three food plans; and BLS Family Budgets, which are 1969 cost estimates of three standards of living adjusted by the CPI since then. The first and last of these sources were used together to provide a reasonable and stable basis for civilian food costs because: (1) the data are updated annually by BLS; (2) they cover food at home and away from home; and (3) they realistically show food expenditures increasing with salary. The drawbacks of this choice are that actual

food expenditures are not reflected and the annual update is based on CPI rather than direct pricing. See Tab D for a detailed discussion.

c. Federal Income Tax Cost. The candidate sources for this data for tax purposes are IRS statistics of average deductions as related to family adjusted gross income levels and calculations based on the standard deduction. The standard deduction method was chosen because: (1) many GS employees have working spouses or outside income which should not be included in these calculations; (2) use of the first method would require some type of regression technique to solve for the deduction and these techniques have not yielded satisfactory levels of correlation; (3) the standard deduction is used by the majority of persons filing tax returns; and (4) the standard deduction is simple and regularized in law. Family size assumptions were based on national population data. For a more detailed discussion, see Tab E.

IV. Setting BAQ and BAS Rates and Calculating Military Taxes:

a. BAQ. The annual Naval Facilities Command (NAVFAC) survey covers rental and ownership costs by pay grade for married personnel. The national averages of expenditures on housing actually experienced by members in each grade will be used to set BAQ. Bachelor BAQ should be set in the same manner but the NAVFAC survey doesn't include bachelor data yet. Until data on actual expenditures is available, the current relationship

of with to without dependents BAQ has been used for illustrative purposes. See Tab F for a more detailed discussion.

b. BAS. A single BAS rate will be established for all military personnel instead of varying the rate by salary as was done on the civilian food cost offset. The government's obligation to subsist its members does not vary with grade. For reasons of equity the officer rate will be set equal to the enlisted rate. The source chosen was the same as that for civilians and the average or intermediate value was used to set the BAS rate. See Tab F for a more detailed discussion.

c. Federal Income Tax. The standard deduction was applied to known military family size distributions consistent with longstanding practices for RMC calculations. According to a recent IRS sample of military tax returns, over 70% of the military force use the standard deduction; there isn't a satisfactory mathematical relationship between tax deductions and adjusted gross income; and, of those military who itemize deductions, the deductions vary widely.¹ The reasons already listed for the civilian tax considerations also apply.

V. Tables of Military Basic Pay: The basic pay tables are built around the linkage grades. Intergrade relationships from the current basic pay table have been used to establish the enlisted and officer paylines because those relationships have been developed to meet force management needs. Intragrade differentials from the current basic pay table could not

¹ See QRMC Staff Research Paper "Tax Advantage", 29 June 1976.

be used because they were irregular and varied widely. Regularized intragrade progression rates are developed from civilian practices to provide meaningful increases to recognize performance improvements that on the average result from additional time in service. Steps were added at the one year point, to match private sector practices for entering employees, and at the 24, 28, 30 and 32 year points to smooth out departure patterns in the senior grades by serving as an inducement to remain on active duty consistent with personnel management objectives. Finally, the three special pay grades, 0-1E, 0-2E, and 0-3E, for officers who have over four years of enlisted service were eliminated at no significant increase in cost. The 1971 All Volunteer Force pay raises have eliminated the pay inversions which made that separate pay table desirable. For a fuller discussion, see Tab G.

VI. Implementation. The military equivalent salary which results from the methodology is shown at Tabs G-2 through G-5. The basic pay tables are at Tab G-9, BAQ and BAS at Tab F. The linkage grades used are E-3, E-7, 0-2 and 0-5. The latter grade is used in lieu of the preferable 0-6 because 0-6 linkage data was not developed in staff research on linkage. To provide a comprehensive and integrated compensation plan based on the modernized pays and allowances system, a detailed list of 43 related compensation elements and transition assumptions is provided at Tab H. The major features in that plan are:

- The new system becomes effective October 1978.
- Current basic pay and allowance rates will remain in effect on an optional basis for an additional period of about 5 years until all active duty members shift to the new tables without loss of basic pay. No pay raises to the old rates after October 1980.
- The DoD proposal for military retirement modernization will be adopted.
- Linkages are to the General Schedule whole grade nearest the work level of the military linkage grade. The enlisted linkage is to GS only, not a mix of blue and white collar.
- Bonuses and special pays will be unlinked from basic pay and set at specified levels.
- Enlisted bonuses and special pays in critical specialties will be used more extensively because blue collar occupations were excluded from the linkage. Thus the general basic payline is lower but more specialties will require competitive bonuses to meet manning requirements.
- PCS travel entitlements are extended to junior enlisted members.
- The "fair market" rental system (FMR) for government housing is not adopted because adoption of a housing rental scheme in a pay system with non-taxable BAQ would probably result in change of the non-taxable status of the allowances.
- Members on sea duty and extended field duty are entitled to government housing -- or the quarters allowance when adequate housing is not provided -- as are all other members.

- Variable Housing Allowance (VHA) for the United States is adopted.

Comparative systems costs are:

	Comparative Costs ¹ (\$ Millions)	
	<u>Current System</u>	<u>Modernized System</u>
Basic Pay	\$ 16,054.4	\$13,543.5
BAQ	3,285.1	5,110.7
QIK	1,531.6	2,314.9
BAS	1,844.4	2,822.5
SIK	729.2	1,319.5
(Tax Adv)	<u>(1,270.4)</u>	<u>(1,985.8)</u>
RMC ²	<u>22,454.3</u>	<u>23,462.5</u>
DOD Personnel Budget Costs of Costs of RMC items ³	<u>18,923.1</u>	<u>17,842.3</u>
Other elements ⁴	<u>13,828.6</u>	<u>12,974.8</u>
Recurring System Costs	\$32,751.7	\$30,817.1
Transition Costs		\$790.4

Detailed cost comparisons are shown in Tab I to permit evaluation of separate elements in the context of the total system.

1

Cost estimates are based on the President's FY 77 budget submission.

2

Sum of Basic Pay, BAQ, BAS, and Tax Advantage.

3

RMC less QIK, SIK, and less tax advantage.

4

Includes Retirement pay accrual of \$4,570.0 million under current system and \$3,258.3 million under proposed system.

Alternative Work Level Linkage Standards.

This research paper has developed a pay setting methodology for a modernized pay and allowances system. One of several possible pay standards--the one selected by the QRMC Study Group--was used to illustrate the technique and to provide cost estimates. The adequacy of the standard in meeting force management needs and in achieving acceptability among military personnel requires management judgments not necessarily reducible to quantitative comparisons. Considerations bearing on these judgments include:

- Basic pay is reduced in all grades and most longevity steps, substantially so in many grades. The appearance of pay reduction may not be offset by the visible improvement in the allowances and the use of a VHA to deal with housing cost variations.
- The reduced enlisted pay levels will require application of a broadened range of enlistment and reenlistment bonuses to a substantially increased proportion of the force. With too high a proportion of the force on "shadow" paylines above the common basic payline the advantages in motivation and esprit expected from that common pay base may be lost or even reversed. At some point, the theoretical efficiency of the approach would be offset by the loss of system effectiveness in performance motivation and retention.

- The reduced basic pay levels will reduce retired pay scales under both the current retired pay system and the Retirement Modernization Act system endorsed by the QRMC Study Group. If the retired pay scales resulting from placing RMA on the current basic pay scales are the appropriate and intended scales, then adoption of the recommended standard would require some adjustment to the retired pay multipliers in RMA. Alternatively rationalization of the resulting retired pay scales could be attempted. However, since RMA was designed without consideration of substantial restructuring of current basic pay scales, this would appear to be extremely difficult.

Because considerations like these may well be more important than more quantifiable ones, the QRMC Staff applied its military pay setting technique to one of the other possible military pay standards. This provides another set of cost estimates and another set of pay tables to be considered. The intergrade positioning links on the weighted average of GS and WG were selected for this purpose:¹

<u>Pay Grade</u>	<u>Civil Service Linkage</u> ¹
E-3	Weighted average of: 13% of way between GS-3 and GS-5 and 79% of way between WG-5 and WG-6.

¹ These and the other potential linkage standards are detailed in Staff Research Paper "Military and Civilian Work Comparison", 10 May 1976 (Rev 27 Dec 1976) p104.

- E-7 Weighted average of: 18% of way between GS-7 and GS-9
 and 24% of way between WS-9 and WS-10.
- O-2 14% of way between GS-9 and GS-11.
- O-5 24% of way between GS-14 and GS15.

The linkage pay comparisons, officer and enlisted basic paylines, officer and enlisted pay tables, and system cost comparisons are at Tab J.

To develop system cost estimates for the Modernized Pay and Allowances System under both alternative linkages (Tab I and Tab J) illustrative assumptions were made which were consistent with the recommendations of the QPMC Study Group. These assumptions would probably be changed in the process of actual conversion to a Modernized Pay and Allowance System. For example:

- o The "forfeiture" of BAQ at the assumed average off post housing cost levels would on the average greatly overcharge members living in government quarters, especially bachelors, and would probably be judged unacceptable. Rather than rejecting the whole pay and allowances system, however, it is more likely that an alternative BAQ standard would be chosen. For example, the standard of average off post costs at the lowest cost ten stations would significantly lower BAQ costs, and increase somewhat less the cost of VHA. This would make BAQ "forfeiture" rates more "reasonable."

● Retired pay is based on the provisions of the 1976 Retirement Modernization Act (RMA) proposal. The RMA proposal was designed to be based upon current basic pay levels. Because basic pay levels under the Modernized system are reduced, in some cases dramatically, the resulting retired pay level would bear no relationship to the levels intended by RMA. A new basis for calculating retired pay levels would have to be developed, so that restructuring of basic paylines would not automatically result in major alterations in retired pay values. This is in keeping with the assumption made in most compensation studies by proponents of a military salary system that conversion to a salary system should not automatically result in increased retired pay through application of existing retired pay multipliers to the significantly changed active duty pay rate base.

This staff paper does not cost all of the possible pay standards, allowance standards, and compensation system changes which could be made in implementing a Modernized Pay and Allowances System using the methodology proposed. But the two illustrative cases developed highlight the fact that the interrelationship of system components makes it essential that management decisions on individual components be taken in an integrated fashion giving consideration to objectives of the components, appropriateness of rates, and to reasonableness and credibility as well as to aggregate cost. In a non-taxable pay and allowances system these considerations are especially relevant to the relationship between BAQ and VHA, and between basic pay and retired pay.

**MONTHLY HOUSING COSTS AS A PERCENT OF FAMILY INCOME,
MARRIED MILITARY PERSONNEL AND CIVILIANS OF
COMPARABLE INCOME CLASSES, CY 1974¹**

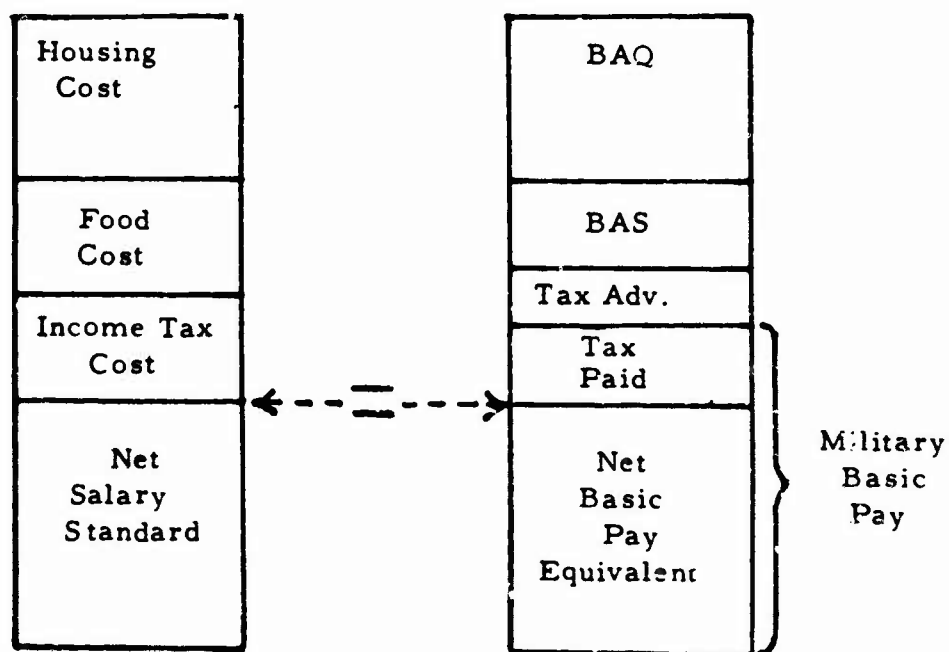
Pay Grade	Military Personnel MHC as % of RMC	<u>Housing Costs as a Percent of Family Income</u>			
		<u>Rental Percent</u>		<u>Homeowner Percent</u>	
		<u>Civilian</u>	<u>Military</u>	<u>Civilian</u>	<u>Military</u>
06	18.7	9.6	14.5	11	17.8
05	21.4	9.6	16.3	11	19.7
04	23.1	11.3	17.0	13	21.4
03	23.6	11.3	16.8	14	22.5
02	23.9	11.3	17.2	14	23.2
01	26.7	15.3	19.3	16	27.4
All Officers	22.9	11.3	16.8	13	21.9
E8	23.8	11.3	19.4	14	21.5
E7	24.9	15.3	19.4	16	22.6
E6	26.6	15.3	20.3	16	25.0
E5	26.8	15.3	19.7	18	26.1
E4	27.0	15.3	19.9	18	26.9
E3	28.7	19.5	21.2	20	27.6
All Enlisted	26.8	15.3	20.0	18	25.8
Total	25.9	15.3	19.3	18	24.9

¹ QRMC Staff Research Paper, Variable Housing Allowance, September 27, 1976, page 43.

DETERMINATION OF MILITARY PAY UNDER A MODERNIZED PAYS AND ALLOWANCES SYSTEM

GENERAL SCHEDULE SALARY

MILITARY EQUIVALENT SALARY



CIVILIAN HOUSING EXPENSES

Several measures of civilian housing expenses can be used:

(1) Annual Housing Survey: 1974. This annual report published by the Bureau of the Census and the Department of Housing and Urban Development includes data on housing expenditures, both rental and homeownership, as a function of family income. However, this data is not directly useful since the Net Salary Standard is to be based on General Schedule scales, not on the family income of civil servants. Although not published in their annual report, the Census/HUD survey does collect data on wage and salary income of heads of household. It is possible, therefore, to relate housing costs, ownership and rental, to the wage or salary of head of household. This data is available to the public on computer tape. It will be used as the basis for determining the housing offset to the civilian salary. The computer data containing the results of the 1975 survey will become available in the summer of 1977. These data could be obtained routinely from Census and indexed to the appropriate date for pay-setting purposes.

(2) General Schedule Employee Survey. The Department of State surveys rental and ownership costs of married male General Schedule employees in the Washington, D. C. area. This data is used by the State Department in establishing housing and cost of living

allowances for certain government civilians overseas. This index is not as useful for Net Salary Standard calculations as the Census/HUD survey since the State Department survey is taken only once every five years and only in Washington, D. C. It cannot be determined whether housing expenditure patterns for General Schedule employees in Washington, where housing costs are atypical, are applicable throughout the country.

(3) Calculation from Census/HUD Annual Housing Survey and Census Consumer Income Report. The Bureau of the Census Consumer Income Reports provide data on the portion of family income earned by heads of household. This information can be applied to Annual Housing Survey data to calculate housing expense as a function of salary. This method provides housing expense information sooner than is currently possible using Census/HUD Housing Survey data by salary of head of household directly. It would be less accurate than the direct data, and thus less desirable for pay-setting purposes. Nevertheless it can be used for working estimates to permit assessment of the proposed system in this paper. At Attachment 1 is a detailed explanation of this approximation technique used to estimate Civilian Housing Cost at each of the four linkage grades.

ESTIMATING AVERAGE CIVILIAN HOUSING EXPENSE

The Bureau of Census Consumer Income Report provides data on the proportion of income earned by heads of household. This data shows that on the average about 77% of family income in the United States is head of household wages or salaries.

The Census/HUD Annual Housing Survey provides data on housing expense as a function of family income. These data can be combined to estimate the family income of heads of household earning the salary of civilians at the linkage grades. For example, the civilian linkage salary for E-3 is \$7,339. The estimated average family income at this salary level is $\$7,339 \div .77$ or \$9,531. Once family income is known, housing costs can be estimated from Census data which relates housing costs to family income.

MEDIAN RENTAL EXPENDITURES AS A PERCENT OF INCOME ¹

<u>Income Class</u>	<u>Percent</u>
3,000-4,999	32.4
5,000-6,999	24.4
7,000-9,999	19.5
10,000-14,999	15.3
15,000-24,999	11.3
25,000 and over	9.6

¹

Rental expenditures include utilities payments.

SELECTED MEDIAN HOUSING COSTS AS A
PERCENT OF INCOME, HOMEOWNERS ¹

<u>Income Class</u>	<u>Percent</u>
2,000-3,999	45
4,000-5,999	31
6,000-7,999	24
8,000-9,999	20
10,000-12,499	18
12,500-14,999	16
15,000-19,999	14
20,000-24,999	13
25,000 and over	11

¹ Selected housing costs=mortgage payments + utilities + insurance + real estate taxes.

Regression analysis is made on each of the two data sets to derive housing cost estimating relationships (CER) to income levels. The two CER's are:

(1) Homeownership Costs = \$1,124 + .0785 (Family Income)

(2) Rental Costs = 70.9 *(Family Income) .35

For estimated family income levels at each of the four linkage grades, estimates of rental and homeownership costs can be made. These separate estimates of rental and ownership costs are then combined according to the proportion of renters and homeowners at those family income levels to derive a single estimate of housing costs at each of the linkage grades. The following table shows the calculation of housing costs.

ESTIMATED HOUSING COSTS

LINKAGE GRADES	CIVILIAN SALARY AT LINKAGE GRADE	ESTIMATED FAMILY INCOME	RENTAL COSTS		OWNER COSTS		PROPORTION OF TOTAL		WEIGHTED AVERAGE COSTS
			RENTAL COSTS		OWNER COSTS		RENTER	OWNER	
E-3/GS-3 (Step 2)	\$7,339	\$9,531	\$1,737	\$1,872	43%	57%			\$1,814
E-7/GS-7 (Step 4)	12,150	15,779	2,072	2,363	21	79			2,302
O-2/GS-9 (Step 2)	13,931	18,092	2,173	2,544	21	79			2,466
O-5/GS-14 (Step 3)	28,651	37,209	2,795	4,045	13	87			3,883

CIVILIAN FOOD COSTS

Unlike housing expenses, there is no annual survey of food expenditures by Federal government data collection agencies. As a result, it is necessary to use less direct data for calculating food expenditure offsets to determine the Net Salary Standard. There are several alternative sources for estimating food costs for an individual:

(1) Consumer Expenditure Survey, BLS took a one year detailed survey of actual civilian expenditures for food by income levels. (Consumer Expenditure Survey Series: Dairy Survey, July 1973-June 1974). These data were compiled from diaries of actual consumer expenditures maintained by a sample of approximately 10,000 families. This survey is the only comprehensive source of detailed information on actual expenditures by family size and income level. It includes food at home and away from home. While actual expenditures are the most appropriate data, the BLS survey is not taken on a regular basis. Data from 1974 requires adjustments to both the food expenditure figures to reflect the food cost increases since that time period and the change in income

levels since that period in relation to the food cost increases. Alternatively, the BLS data could be used by making an assumption that food expenditures as a function of income remains relatively stable. While this assumption may be correct for short periods of time, it should not be extended indefinitely. Since this BLS survey is not updated regularly, and its next update is uncertain, it is undesirable as the primary data source for calculating civilian food expense.

(2) Agriculture Family Food Plan. The Department of Agriculture publishes data on the cost of food at home for various age categories and family sizes. (See Attachment I.) Estimates of food costs at three assumed food plans are shown for each of the categories. These plans represent three levels of cost for food at home. However, they do not reflect how much people actually spend for food, and do not relate food expenditures to income levels, though food expenditures vary significantly by income level. They are therefore not useful for estimating civilian food cost.

(3) BLS Family Budgets. The Bureau of Labor Statistics publishes annually three hypothetical family budgets which portray the costs of three relative standards of living - described as lower, intermediate, and higher (U.S. Department of Labor Report 76-759, May 5, 1976). These budgets are based on direct pricing done in 1969, updated annually through BLS CPI adjustments. The budgets do not show how families of this type actually spend their money. They represent

assumptions made about the manner of living at each of the three levels. The budgets are broken down into various consumption categories including a food budget that represents food at home and away from home. Attachment 2 shows the 3 budget levels for an urban family of 4 and the food expenditure portion of the budgets. The BLS Family Budgets also show total consumption budgets for single persons, also shown in Attachment 2. Although BLS does not break down the total consumption budgets of single persons into each of the individual consumption items, it is possible to estimate food expenditures for single persons and families of four. The ratio of food expenditures of singles to families with four members reported in the BLS Consumer Expenditure Survey (described in (a) above) was .36. This very closely parallels the relationship between the total consumption budget of singles and their model family of four at each of the three budget levels (.35). Therefore, the relationship between the food element and the total consumption of the four member model family can be applied to the total consumption estimate of the single person family to give a reasonable estimate of food expenditures for a single person. This produces the following estimates of food cost at the three budget levels:

	<u>Lower</u>	<u>Intermediate</u>	<u>Higher</u>
Annual	\$1037	\$1353	\$1695
Daily	\$2.84	\$3.71	\$4.64

The estimated family income of heads of household earning salaries of the General Schedule linkage grades correspond approximately to the BLS family budgets as follows:

	<u>Family Budget Level</u> ¹		
	<u>Lower</u>	<u>Intermediate</u>	<u>Higher</u>
Total Budget	\$9,588	\$15,318	\$22,294
GS-3, Step 2	9,531		
GS-7, Step 4		15,779	
GS-9, Step 2		18,092	
GS-14, Step 3			37,209

1

Estimates of family income from General Schedule salaries is explained in Tab C, Appendix 1. While the family income at the GS-14 level is significantly higher than the BLS family budget, food expenditures should not be appreciably higher. The Consumer Expenditures Survey shows that the actual dollar amount of food expenditures remains relatively constant past the \$20,000 family income level.

Tab D

On this basis the civilian food cost for the Net Salary standard at the linkage grades will be as follows: GS-3, lower budget (\$1,037); GS-7 and GS-9, intermediate budget (\$1,353); GS-14, higher budget (\$1,695).

In summary, there is no best single source for determining civilian food cost as there is for determining civilian housing expense. The BLS Family Budgets, factored for the single person using the BLS Consumer Expenditure Survey was chosen as a reasonable and stable basis because: (1) the data is updated annually by BLS; (2) they cover food both at home and away from home; (3) they realistically show food expenditures increasing with income. The drawbacks with using this source are: (1) they do not reflect actual food expenditures; and (2) the annual update is based on CPI rather than on direct pricing.

Cost of Food at Home ^{1/} Estimated for Food Plans
at Three Cost Levels, September 1975, U.S. Average

Sex-age groups	Cost for 1 week			Cost for 1 month		
	Low-cost plan	Moderate- cost plan	Liberal plan	Low-cost plan	Moderate- cost plan	Liberal plan
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
FAMILIES						
Family of 2: ^{2/}						
20-54 years.....	29.10	36.60	44.10	126.30	158.70	191.20
55 years and over.....	25.70	32.00	38.40	111.40	138.80	166.30
Family of 4:						
Children, 1-2 and 3-5 years....	40.90	51.10	61.50	177.20	221.60	266.50
Children, 6-8 and 9-11 years...	49.50	62.10	74.80	214.30	259.30	324.00
INDIVIDUALS ^{3/}						
Child						
7 months to 1 year.....	5.40	6.70	7.90	23.50	28.80	34.20
1-2 years.....	6.60	8.10	9.70	28.40	35.10	41.90
3-5 years.....	7.80	9.70	11.70	34.00	42.20	50.80
6-8 years.....	10.20	12.80	15.40	44.20	55.50	66.70
9-11 years.....	12.80	16.00	19.30	55.30	69.50	83.50
Male:						
12-14 years.....	13.60	17.10	20.50	59.00	74.00	88.90
15-19 years.....	15.10	18.90	22.80	65.40	82.00	98.80
20-54 years.....	14.70	18.60	22.50	63.80	80.60	97.40
55 years and over.....	12.90	16.10	19.40	55.80	69.70	83.90
Female:						
12-19 years.....	12.10	15.10	18.00	52.50	65.20	78.00
20-54 years.....	11.80	14.70	17.60	50.00	63.70	76.40
55 years and over.....	10.50	13.00	15.50	45.50	56.50	67.30
Pregnant.....	14.50	17.90	21.40	62.80	77.60	92.70
Nursing.....	15.40	19.20	23.00	66.90	83.20	99.50

^{1/} These estimates were computed from quantities in food plans published in Family Economics Review, Winter 1975. The costs of the food plans were first estimated by using the average price per pound of each food group paid by urban survey families at three selected food cost levels in 1965-66. These prices were adjusted to current levels by use of Retail Food Prices by Cities released periodically by the Bureau of Labor Statistics.

^{2/} Ten percent added for family size adjustment. See footnote 3.

^{3/} The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person--add 20 percent; 2-person--add 10 percent; 3-person--add 5 percent; 5-person--subtract 5 percent; 6-or-more-person--subtract 10 percent.

U.S. Department of Agriculture
Agricultural Research Service
Consumer and Food Economics Institute
Hyattsville, Maryland 20782

HYPOTHETICAL FAMILY BUDGETS

Autumn 1975

	<u>Lower</u>	<u>Intermediate</u>	<u>Higher</u>
Total Budget	\$9,588	\$15,318	\$22,294
Total Consumption	\$7,795	\$11,725	\$16,141
Food Expenditures	\$2,952	\$ 3,827	\$ 4,819
Total Consumption for Singles	\$2,730	\$ 4,100	\$ 5,650

Source: Bureau of Labor Statistics, USDL: 76-759

FEDERAL INCOME TAX

There are several alternatives for calculating Federal income tax paid by civilians:

(1) Internal Revenue Service (IRS) Average Tax Data.

The IRS publishes annually a report called Statistics of Income-Individual Income Tax Returns which relates average tax deductions to family adjusted gross income levels. To use this data would require assumptions about the relationship between head of household salary and adjusted gross income, as was discussed in the Civilian Housing Expense Section. This is undesirable for pay-setting purposes.

(2) Standard Deduction on Military Family Size. The Federal income tax on civilian salary can be calculated based on the same family size distribution as military personnel at the linkage grades. This approach is convenient because the data elements--tax rates, GS salary rates and military family size is readily available. The use of the standard deduction isolates the Tax Paid estimate from non-salary related family income and expense. However, family size is more a function of age than of income, and the military force is of a very constrained age range compared to civilian groups. These considerations make this alternative undesirable.

(3) Standard Deduction on Civilian Family Size. Federal income tax on civilian salary can be calculated based on civilian family size. Data relating average family size to General Schedule grade is not currently available. National data on family size as a function of head of household salary is not available either. However, the average family size for the population as a whole is available and can reasonably be applied to the Federal Civil Service since family size is not necessarily a function of income level. The current average family size in the United States is three. (Current Population Reports, Consumer Income, Bureau of the Census). Therefore, a family size of three is assumed for calculating civilian Federal Income Tax Expense at the linkage grades. There is no available data on the relationship between tax deductions and head of household salary. The use of the standard deduction assumption is longstanding practice in military RMC calculations. It permits reasonable isolation of tax expense associated with salary from tax expense associated with other income and individual family deduction characteristics. This alternative was selected as the most reasonable and stable basis on which to calculate the Civilian Tax Paid.

BASIC ALLOWANCE FOR QUARTERS AND BASIC
ALLOWANCE FOR SUBSISTENCE UNDER THE
MODERNIZED PAYS AND ALLOWANCES SYSTEM

a. Basic Allowance for Quarters.

The Basic Allowance for Quarters (BAQ) will be set to defray costs based on housing expenses experienced by military personnel. The annual Naval Facilities Command (NAVFAC) survey covers both rental and homeownership costs by pay grade. The national average military housing expense for each pay grade determined from this survey will be used as the basis for establishing BAQ rates. For implementation of this pay system, the survey would have to be refined to also include rental and homeownership expenses of bachelors and possibly to modify its timing to more closely approximate the timing of annual pay adjustments or of BLS surveys used to calculate the "net salary standard" link. Currently the NAVFAC survey covers only housing cost of married personnel. Data from the latest survey (January 1976) are used in calculating married BAQ rates. The current relationship of bachelor BAQ to married BAQ is used to estimate bachelor housing costs until bachelor housing costs are collected.

b. Basic Allowance for Subsistence.

The Basic Allowance for Subsistence (BAS) rates will be set based on a food cost index which reflects the food cost experience of military personnel. A single BAS rate will be established for enlisted personnel in recognition of the government's obligation to provide subsistence to military members and that this obligation does not vary by pay grade. The current inversion of officer and enlisted rate is a result of the peculiarities of successive pay adjustment mechanisms. There is no need to subsidize officers at levels different from enlisted personnel. Therefore for equity officer and enlisted cash subsistence rates will be set at the same rate.

There is no data on how much military personnel actually spend for food. In lieu of that data, there are several alternatives which can be used as the basis for BAS rates:

- The raw food cost of a daily ration to the Department of Defense. The current rate is \$2.73. This alternative has the advantage of equalizing the allowance of enlisted members receiving subsistence in cash and in kind and of officers and enlisted members. It is also quite close to the BLS

consumption budget daily food cost for lower budgets. It has the disadvantage of not accurately reflecting average food costs of military members who do not receive subsistence in kind.

- A food cost index which measures the cost of subsisting an individual on the civilian economy. There are three data sources available for measuring food costs on the economy: (1) The Consumer Expenditure Survey Series which measures actual food expenditures; (2) The Department of Agriculture estimate of the cost of food at home for defined food plans; (3) and the BLS Family Budget levels which estimate costs, both at home and away, at three defined standards of living. This latter index is the best of the three data sources for accurately measuring, on a continuing basis, food cost expenditures on the civilian economy. The intermediate budget level, equal to \$3.71 per day, is an appropriate BAS rate since it represents food costs of people subsisting at their own expense and since a single BAS rate will be established for all military grades. It can also be considered an appropriate charge to members on cash BAS who at their own option use government messing facilities as including the portion of mess operating costs not attributable to military and contingency requirements.¹ This alternative will be used as the basis for BAS rates in this paper.

Attachment 1 shows the estimated BAQ and BAS rates using this methodology.

¹ See QRM Staff Research paper "Subsistence", 17 November 1975 for discussion of this issue.

ESTIMATED MONTHLY BASIC ALLOWANCE FOR QUARTERS (BAQ) AND BASIC
ALLOWANCE FOR SUBSISTENCE (BAS) UNDER THE MODERNIZED PAYS
AND ALLOWANCES SYSTEM

GRADE	BAQ With Dependents		BAQ Without Dependents		BAS	
	MODERNIZED 1/	CURRENT	MODERNIZED 3/	CURRENT	MODERNIZED 4/	CURRENT
O-10	\$620 <u>2/</u>	\$319	\$496	\$255	\$113	\$53
O-9	620 <u>2/</u>	319	496	255	113	53
O-8	620 <u>2/</u>	319	496	255	113	53
O-7	620 <u>2/</u>	319	496	255	113	53
O-6	556	286	456	235	113	53
O-5	502	265	417	220	113	53
O-4	457	239	379	198	113	53
O-3	383	217	310	176	113	53
O-2	303	195	239	154	113	53
O-1	258	157	199	121	113	53
W-4	441 <u>2/</u>	230	366	191	113	53
W-3	376 <u>2/</u>	212	305	172	113	53
W-2	300 <u>2/</u>	193	237	152	113	53
W-1	293 <u>2/</u>	178	226	137	113	53
E-9	335 <u>2/</u>	204	238	145	113	77
E-8	313	191	222	135	113	77
E-7	288	179	187	116	113	77
E-6	258	166	165	106	113	77
E-5	218	154	146	103	113	77
E-4	187	134	125	90	113	77
E-3	177	116	122	80	113	77
E-2	177 <u>2/</u>	116	108	71	113	77
E-1	177 <u>2/</u>	116	101	67	113	77

- 1/ Average off post housing costs as developed from January 1976 NAVFAC Survey.
- 2/ Insufficient number of responses in NAVFAC Survey for these grades to estimate housing costs. Estimates of housing costs for these grades was based on the current BAQ relationships at the following: O-10 through O-7 to O-6; W-4 to O-4; W-3 to O-3; W-2 to O-2; W-1 to O-1; E-9 to E-8; E-1 and E-2 to E-3.
- 3/ Estimated by applying the current relationship of without dependents BAQ to with dependents BAQ to the modernized with dependents BAQ rates.
- 4/ BLS Family Consumption Budgets, intermediate budget level.

Attachment 1
to Tab F

BASIC PAY RATES UNDER THE MODERNIZED
PAYS AND ALLOWANCES SYSTEM

The basic pay tables under the modernized pays and allowances system will be constructed based on the following criteria:

Pay Table Criteria.

a. Linkage.

Military basic pay is based on whole grade work level linkages with the General Schedule at the following points: E-3 to GS-3 and E-7 to GS-7; O-2 to GS-9 and O-5 to GS-14.

b. Core Longevity Steps.

The construction of the pay tables centers around promotion points for each of the grades and the number of years spent in the grade until promotion to the next grade and until retirement, or force out, after promotion to the grade. Along with accession and retention considerations, these features of the military personnel management system will serve as a guide in constructing the basic pay tables. The point in the grade at which promotion occurs is identified as the "core" longevity step for that grade. In the officer pay table, the "core" longevity step is the DOPMS promotion flow point. In the enlisted pay table, the "core" longevity step is the average years of service at promotion in the Enlisted Management Systems Plan. The line which connects the pay at the core longevity steps in the basic pay tables is defined as the payline. Tab G-1 shows the longevity step at each pay grade which forms the two military paylines.

c. Basic Pay Rates at the Linkage Grades.

Basic pay rates at the two linkage points in each payline will be set based on a "net salary standard" which is derived from the linked General Schedule salary. This "net salary standard" is created by deducting from civilian basic salary the expense elements for food and shelter and federal income taxes. Military basic pay at the linkage grades will be set such that basic pay after federal income taxes is equal to the "net salary standard". The determination of basic pay at the linkage grades using the methodology and data sources described, and the associated military equivalent salaries, are shown at Tabs G-2 through G-5.

The General Schedule salaries at the linkage points are those which result from entry into or promotion to those grades. Data on the entire General Schedule is not yet available. Until it is, data on DoD civilians will be used to represent it. The General Schedule linkage salaries will be determined as follows:

(1) In calendar year 1975, the average step upon promotion to GS-3 of Department of Defense civilians, consisting largely of employees in the technical/clerical occupational grouping, was Step 2. Therefore, the E-3 basic pay at the core longevity step (over one year of service) is set based upon the "net salary standard" which results from the salary of GS-3, Step 2, or \$7,339 per year.

(2) Generally speaking, GS-7 occupations which are analogous to jobs filled by the E-7 are those which are classified in the technical/

clerical schedule under the new Civil Service salary schedules proposed by the President's Panel on Federal Compensation (Rockefeller Panel). Therefore, the average step upon promotion to GS-7 in technical/clerical occupations is used to set the E-7 salary at the core longevity step. This will be consistent with the recommendation of the Rockefeller Panel to separate the current General Schedule into two schedules, one covering executive/professional/administrative occupations and the other covering technical/clerical occupations. Salaries of executive/professional/administrative employees will be set on a national average basis while salaries of technical/clerical employees will be set on a locality basis. In 1975, the average step on promotion to GS-7 of Department of Defense civilians in the technical/clerical occupational grouping was Step 4 to the nearest whole step. (See Tab G-6) The E-7 basic pay at the core longevity step (over 14 years of service) is set based upon the "net salary standard" which results from the salary of GS-7, Step 4, or \$12,150 per year.

(3) The 0-2 occupations at the GS-9 level are generally those that would be classified in the executive/professional/administrative schedule, whose salaries will be set on a national average basis. The basic pay of the 0-2 is, therefore, based on the average step at promotion to GS-9 in professional and administrative occupations. In 1975, the average step on promotion of Department of Defense civilians in these occupational groupings was Step 2 to the nearest whole step. The

O-2 basic pay at the core longevity step (over two years of service) is set based upon the "net salary standard" which results from the salary of GS-9, Step 2, or \$13,931 per year.

(4) In 1975, the average step upon promotion to GS-14 of Department of Defense civilians, all of whom are classified in professional/administrative occupations, was Step 3. Therefore, the O-5 basic pay at the core longevity step (over 16 years of service) is set based upon the "net salary standard" which results from the salary of GS-14, Step 3, or \$28,651 per year.

d. Intergrade Differentials.

The intergrade differential sets the difference in basic pay rates between grades at the core longevity steps. The differentials which currently exist in basic pay at the core longevity steps is retained in the modernized pays and allowances basic pay table. The current differentials in basic pay was selected as appropriate intergrade differentials because basic pay is the element of military compensation which has been shaped over a period of years to meet the unique personnel management requirements of the services and the levels of which reflect work level distinctions between the grades. The shape of the General Schedule payline was not considered because it has been structured to meet personnel requirements of a civilian force significantly different from that of the military. RMC "payline" differentials were also considered for this purpose. They were rejected because three elements of

RMC--basic allowance for quarters, basic allowance for subsistence, and tax advantage--bear no relationship to the purpose of the intergrade differentials (i. e., to make pay distinctions to reflect work level distinctions). Currently, and under the modernized pays and allowances system, these two allowances are based primarily on need and without regard to longevity while the tax advantage element is influenced by the vagaries of U.S. income tax laws. Therefore, RMC is not useful for establishing basic pay intergrade differentials under a modernized pays and allowances system.

e. Longevity Steps

(1) Time Interval Between Steps.

Longevity pay increases serve as an economic incentive to remain in service and are to recognize and reward individual performance improvements which, on the average, occur with additional time spent in service. The annual matching pay increases keep overall military pay abreast of wage movements in the private sector. The two-year intervals which occur between most of the longevity steps in the present pay table are retained in the basic pay tables as reasonable intervals between performance-related increases. However, exceptions to this general rule are made by retaining the longevity step at the three years of service point which is in the current basic pay table and adding a longevity pay step at the 1-year point. Therefore, one year intervals occur between longevity step increases in the first four years of service and two-year intervals thereafter. The shorter time period between longe-

vity pay increases in the first four years of service is consistent with the practice in the private sector of frequent pay increases in the early years of employment. Kramer Associates, Inc. in a study of entry level compensation practices in the civilian sector for the Third QRCM,^{1/} reported that:

- Entry-level professional employees, who correspond roughly to newly commissioned officers, are promoted after one year and, on the average, receive salary increases of 15 percent.
- Employees in entry-level office occupations can generally attain the second level in three to six months.
- Apprentices in skilled trade programs, usually three to four years in duration, receive a pay increase after six months and another increase after one year.

In the enlisted basic pay table, these early pay increases upon entry are provided through promotion. Under enlisted force management plans, promotion to E-2 occurs after six months service and promotion to E-3 occurs after one year. However, under the current basic pay tables the entry commissioned officer does not receive a pay increase for two years when, under DOPMS, promotion to O-2 occurs. Therefore, the one-year longevity step pay increase is added to give earlier recognition to the performance improvement achieved by the officer after commissioning.

(2) Number of Longevity Steps

(a) Officer Basic Pay Table

There were several factors considered in determining the

^{1/}Entry Level Compensation Practices In The Civilian Sector,
Kramer Associates, Inc., August 6, 1975.

number of longevity steps in the officer basic pay table. These considerations include the Defense Officer Personnel Management System (DOPMS), which defines the longevity steps for each grade steps at which normal promotion will occur. Longevity increases beyond the DOPMS promotion flow points are unnecessary since the necessity for providing an economic incentive is eliminated. However, since the promotion points contained in DOPMS are subject to change, a measure of flexibility is provided in the pay table by adding one longevity pay increase past the normal promotion point to the next grade. Under this criteria, the longevity pay increases terminate at the following steps: 0-1, 3 years; 0-2, 6 years; 0-3, 12 years; 0-4, 18 years; 0-5, 24 years.

Additional longevity steps are then added to those determined under the DOPMS criteria for grades 0-1, 0-2, and 0-3. This permits elimination of the current separate table for commissioned officers with enlisted service (0-1E, 0-2E, and 0-3E). When that separate table was originally established, the major justification was to preclude pay inversions on initial commissioning and to avoid inequities for those who were commissioned with considerably more than four years enlisted service.

The 1971 all-volunteer forces pay raise eliminated the first problem area. The second problem can be eliminated by extending the basic commissioned officer basic pay table intragrade progression to cover personnel commissioned with prior enlisted service. The number of additional longevity steps for each of the grades are created based on the following considerations:

- At least ten years of commissioned service are required for retirement at twenty years. Therefore, ten years service would be the normal maximum service that an enlisted member would have upon being commissioned.

- Under DOPMS the normal flow point to O-3 is at four years of commissioned service. Thus fourteen years would be the normal maximum years of total service an officer would have upon promotion to O-3.

- Under DOPMS an officer remains six years in grade O-3 before promotion to O-4. The officer with the normal maximum enlisted service who was promoted in "due course" would reach retirement eligibility of 20 years while in grade O-3. Therefore, longevity increases in grade O-3 are extended to the 18 year point to provide longevity increases up to the 20 year retirement point.

- Longevity steps for O-2 end at the 14 year point and for O-1 and at the 12 year point since under the DOPMS flow points, promotion or force out will occur before going past these points.

- In the main segment of the officer corps, less than 3% are currently in these "extra" longevity steps. Under DOPMS those longevity steps will be limited essentially to officers with prior enlisted service since regular commissioned officers will be promoted or forced out before reaching these longevity steps. The additional cost of paying the officers who are currently in these extra longevity steps at the proposed basic pay rates would only be approximately \$1.6 million.

DOPMS criteria cannot be applied in determining the terminal longevity steps for grades O-6 through O-10 since there are no promotion flow points to general and flag officer grades. For grade O-6, longevity steps are added at the 24 and 28 years service points to smooth out the O-6 departures from service by serving as an inducement to remain on active duty. This is consistent with the design of the Retirement Modernization Act (RMA) to encourage service to 30 years before retirement. Longevity increases are also added for general and flag officer grades at the 28, 30, and 32 year service points. These steps are added in recognition of the fact that most general and flag officers serve past 30 years before retirement, and provide remuneration for that service.

(b) Enlisted Basic Pay Table

Unlike the officer force, the enlisted force does not have common promotion points nor are promotions specifically managed to occur at a given point. There are considerable differences in the number of years at promotion among the services. For these reasons, there is a wide dispersion around the "core" longevity step of enlisted personnel in each pay grade; this reduces the usefulness of the "core" longevity step as a basis for differential longevity increase rates to contribute to continuation policies.

Therefore, while the identification of "core" longevity steps based on an objective enlisted force is used as a guide in establishing an enlisted basic payline, it is not applied rigidly in constructing the pay table. The pay table must have the flexibility to fit changing force objectives and promotion opportunities in a force less rigidly controlled by "up-or-out" policies than is the officer force. To provide this flexibility, the longevity steps for each grade must extend to the point to which continuation on active service is authorized. Therefore, the basic enlisted pay table will be structured such that longevity pay increases occur up to that longevity step in each grade just preceding the authorized tenure for that grade under current enlisted management plans.

The authorized tenure under current management plans are as follows:
E-4, 10 years; E-5, 20 years; E-6, 23 years; E-7, 26 years; E-8, 28 years;
E-9, 30 years.

Since the average longevity step at which promotion occurs in each grade can vary from the enlisted management objective "core" longevity step over a period of time, and because these promotion points will tend to vary among the services, a constant percentage intragrade differential is applied to all of the longevity steps in each pay grade.

(f) Intragrade Differentials

Intragrade differentials set the dollar difference between longevity steps within a particular pay grade. The current basic pay tables have no regular pattern of differentials. They range from 1.2% to 15.8% in an irregular array. To rationalize intragrade differen-

tials in the basic pay tables, civilian practice in this area is used as a guide. However, the military force is managed primarily on the basis of entry at the bottom and career progression through the grades on a competitive performance basis. Therefore, intragrade longevity increases in pay will be kept subordinate in importance to the increases which result from promotion.

The General Schedule salary table is constructed such that there is a 30% differential between Step 1 and Step 10 in all of the grades. This averages out to an intragrade differential of about 3% between steps.

There is no consistent pattern of practice in the private sector regarding intragrade differentials. A 1974 survey of compensation practices by the Civil Service Commission showed that while length-of-service pay increases are quite common in state and local governments, they play a much less significant role in employee pay adjustment practices for private and non-profit organizations. In private sector organizations which use a step rate pay structure, the median intragrade step differential is between 3% and 4%.

An intragrade differential of 3% is established for the military grades. This differential was chosen because it is consistent with the intragrade differentials in the federal civil service and in private industry. At the basic pay rates involved, a 3% differential is the minimum rate which allows pay increases of a meaningful dollar amount.

Within this framework of comparability with civilian longevity practice, military accession and retention considerations must be taken into account in the early years of service. Generally speaking the initial period of military service obligation occurs within the first four years of enlisted and the first six years of officer service. Determination of intragrade differentials in these segments of the pay table are discussed in the sections on each.

Using these criteria, the military basic pay tables under a modernized pays and allowances system are constructed as follows:

1. Enlisted Basic Pay Table

- a. Setting Basic Pay at the Core Longevity Steps

Basic pay at the core longevity steps of grades E-3 and E-7 are based on work level linkages to the General Schedule at grades GS-3, Step 2 and GS-7, Step 4 as shown at Tabs G-2 and G-3. Basic pay at the core longevity steps of the grades between E-3 and E-7 are set based on the intergrade differentials of basic pay which currently exist between these grades (See Tab G-8). Thus the basic pay of E-4 at the core longevity step for that grade is 1.162 times \$4,220. The intergrade differentials in the current enlisted basic pay table are then applied to the rest of the grades up to E-7.

However, application of these differentials to the core basic pay for E-3 yields a basic pay of \$8,277 for E-7. This is \$723 over the linked pay of \$7,554 for the E-7. To fit the enlisted payline to the two linkage points, this overage is proportionally prorated to the existing intergrade differentials between E-3 and E-7. The resultant enlisted basic

payline and differentials are shown at Tab G-8.

Basic pay rates for E-1 and E-2 are set by stepping down from the linked E-3 basic pay by the percentage differentials in the current pay table. Likewise, "core" longevity basic pay levels for E-8, E-9, and Sergeants Major are set by stepping up from the linked E-7 basic pay by the intergrade differentials in the current pay table.

b. Pay Grades E-1 through E-4 with less than 4 Years Service.

Accession and retention considerations predominate through the first four years of enlisted service. Promotions occur rapidly up to grade E-4. Thus, the primary pay motivating factor is provided through the pay increases which result from promotion rather than from longevity in a grade. In FY 1976, most of the first term enlistments were for a period of three or four years (40% three year enlistments and 54% four year enlistments). Therefore, in constructing the enlisted pay table for this group it is necessary that: (1) entry level pay be competitive with civilian employment so that, in conjunction with the enlistment bonus program, the military services can meet their accession requirements; and (2) there be significant pay increases at the three and four years of service point to provide an incentive to extensions and reenlistments to continue in military service.

c. Entry Level Pay.

The competitive criteria is met by establishing E-3 pay based on linkage to GS-3. Pay for E-1 and E-2 is then derived by

stepping down from the linked E-3 basic pay by the basic pay percentage differentials in the current pay system. This produces a monthly basic pay of \$304 (annual rate of \$3,643 per year) for the E-1.

Without conscription the military must compete with the private sector in the recruiting and retention of full-time permanent personnel. E-1 pay must be competitive with the pay of entry level workers in the private sector. Therefore, The E-1 military pay set by this methodology described was assessed against civilian pay practices for entry pay and pay of similar age groups.

In addition to basic pay, the E-1 is also provided government quarters and subsistence or cash allowances for these items. Under the modernized pays and allowances system, the cash quarters and subsistence allowances are based on actual expenditures for housing and food by military personnel. Food expenses for E-1 are estimated from the intermediate budget of the BLS Family Budget series to be \$113 per month and housing expenses are estimated from the NAVFAC survey to be \$177 per month for married personnel and \$101 per month for bachelors (see Attachment 1 to Tab F). Including the tax advantage which results from the nontaxable allowances, the cash Regular Military Compensation (RMC) for single E-1's is \$568 per month and the average family RMC is \$640 per month. Overall average RMC is \$580 per month (\$6,955 per year).

For purposes of comparison a study of entry level pay practices in the civilian sector was made.¹ The study found very few parallels in the private sector to the indoctrination training, as distinguished from training in a specific skill or trade, which is characteristic of military basic training.

There are a few government sponsored programs, such as the Job Corps and programs under the Manpower Development and Training Act (MDTA), which may bear some similarity to recruit training. However, many of these programs are aimed at disadvantaged and unemployable youths, many of whom cannot qualify for enlistment in the military. In addition, many of these programs are not permanent employment opportunities, but are intended only to improve the ability to later find and hold a job. Once the period of training is over, the enrollee is not employed, but then begins to seek employment. Pay scales in such programs are not therefore of great usefulness for comparisons purposes. The Kramer study reported that 1975 first-level earnings of jobs comparable to enlisted men's office-type specialties were \$549 per month, and the average salary of jobs comparable to enlisted men's specialties other than office (for example, guards and watchmen, laborers, truck drivers) were \$637 per month. The first, or entry-level, is the lower pay grade in an occupation, one into which an inexperienced worker

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Entry Level Compensation Practices In The Civilian Sector,
Kramer Associates, Inc., August 6, 1976.

is hired. Earnings of first stage apprentices in typical labor union apprenticeship programs range from \$471 per month for electricians to \$887 per month for newspaper compositors, with the salaries generally falling in the \$500-600 per month range.

Weekly earnings of age groups in the civilian sector from which the military normally recruit enlisted personnel range from \$104 for 17-years olds to \$156 for 20-year olds (Tab G-7). The \$134 cash RMC for the E-1 (\$6,955 divided by 52 weeks) falls in the range of earnings of 18 and 19 year old males in the private sector.

On balance, therefore, the average cash RMC for the E-1 (\$580 per month/\$134 per week), in conjunction with the system of bonuses for critical specialties, should result in pay levels that are competitive with those paid in the private sector.

d. Retention Considerations

A significant financial incentive is required for retention purposes, at the three and four year service points. In FY 76, about 40% of first term enlistments are for a period of three years and about 54% are for four years. The primary first term reenlistment pool are personnel in grades E-4 and E-5. On average these grades will have been achieved by the end of three and four year first enlistments.¹ In addition, about 85% of military personnel eligible to reenlist after their first term are E-4 or E-5.²

1

The length of service at promotion to E-4 in the FY 77 budget submission is: Army, 1.92 years; Navy, 2 years; Air Force, 2.5 years; Marine Corps, 2.83 years.

2

In FY 75 and FY 76, 62% were E-4, 23% E-5.

For these reasons a three year longevity step is provided with large increases for average promotion to E-4 and early promotion to E-5. The four year longevity step provides a large increase at the normal or payline promotion point to E-5. A larger than normal longevity increase is also provided at the four year longevity step in the E-4 grade. An increase of 50% of that which would result from promotion to E-5 was selected.

2. Officer Basic Pay Table

Basic pay at the core longevity steps of grades 0-2 and 0-5 are based on work level linkages to the General Schedule at grades GS-9, Step 2 and GS-14, Step 3 as shown at Tabs G-4 and G-5. Basic pay at the core longevity steps of the grades between 0-2 and 0-5 are set based on the intergrade differentials of basic pay which currently exist between these grades (See Tab G-8).

However, application of these differentials to the core basic pay for 0-2 yields a basic pay of \$19,819 for 0-5. This is \$631 short of the linked basic pay of \$20,450 for 0-5. To fit the officer payline to the two linkage points, this shortage is proportionally prorated to the existing intergrade differentials between 0-2 and 0-5. The resultant officer basic payline and differentials are shown at Tab G-8.

The "core" longevity basic pay rates for 0-6 through Chief of Staff are set by stepping up from the linked 0-5 core step by the intergrade differentials in the current basic pay table.

The basic pay rate for O-1 is set by stepping down from the linked O-2 basic pay by the basic pay percentage differential in the current pay table.

As was described for the enlisted payline, accession and retention considerations are of primary importance in shaping the basic pay table through the first six years of commissioned service. Currently initial service and training obligations for officers range from three to six years. Therefore, for retention purposes significant pay increases should occur at these longevity steps. Promotions from O-1 to O-2 and O-3 are virtually automatic during this time period. Thus intragrade differentials (longevity increases) are relatively much more important during the first six years than for the remainder of the pay table. Therefore, longevity increases between normal promotion points for the O-3 under six year population are increased from the normal 3% of core step basic pay to 50% of the amount that would result from promotion. This effects the longevity step increases at the three year, four year, and six year points. Entry level salaries for jobs in the private sector comparable to officer grades typically range from \$905 to \$1,076 per month. The influence of a year of experience seems relatively uniform, the second level pay averaging about 15% above the first. While there is no firm rule that a worker will rise to the second level after one year, it does appear to be a common interval.¹

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Kramer op cit p 16. Kramer emphasizes that the duties of most, if not all, officers may have little resemblance to the private sector occupations used for comparison. Kramer's comparisons were based on qualifications (Baccalaureate degree, no experience in intended speciality) of the entrants into the jobs used, rather than on job content.

Proposed officer entry level average RMC is \$1,054 per month. This is within the range of salary averages cited by Kramer.

3. Warrant Officer Basic Pay Table

The basic pay relationship that currently exists between Warrant Officer grades and commissioned officer grades is used to construct the Warrant Officer basic pay table. Basic pay is identical between Warrant Officer and commissioned officer grades at the following points: W-1/10 years and 0-1/3 years; W-2/6 years and 0-2/2 years; W-3/18 years and 0-3/4 years; W-4/14 years and 0-4/6 years. This relationship is retained in the Warrant Officer basic pay table for these longevity steps. Basic pay for the other longevity steps in the Warrant Officer basic pay table are set using the 3% intragrade differentials.

Military basic pay tables based on the methodology and criteria described are shown at Tab G-9.

MILITARY PAYLINE CORE LONGEVITY STEPS

<u>Grade</u>	<u>Longevity Step on Payline</u>
O-1	<1
O-2	2
O-3	4
O-4	10
O-5	16
O-6	22
O-7	28
O-8	30
O-9	30
O-10	30
E-1	< 1
E-2	< 1
E-3	1
E-4	3
F-5	4
F-6	8
E-7	14
F-8	18
E-9	22

Tab G-1

MILITARY PAY STANDARD

E3, 1 year of service

GS-3, Step 2
Salary

E-3
Proposed Average Military
Equivalent Salary

E-3
Current Average
Military Equivalent
Salary

<div><div>\$ 7,339</div><div>Housing Cost</div><div>\$1,814</div><div>Food Cost</div><div>\$1,037</div><div>Income Tax Cost</div><div>\$482</div><div>Net Salary Standard</div><div>\$4,006</div></div>	<div>Military Basic Pay</div> <div>\$4,220</div>	<div><div>\$ 7,943</div><div>BAQ¹</div><div>\$1,691</div><div>BAS</div><div>\$1,353</div><div>Tax Adv.²</div><div>\$679</div><div>Tax Paid</div><div>\$214</div><div>Net Basic Pay Equivalent</div><div>\$4,006</div></div>	<div>Current Basic Pay</div> <div>\$5,018</div>	<div><div>\$ 7,511</div><div>BAQ³</div><div>\$1,110</div><div>BAS</div><div>\$923</div><div>Tax Advantage</div><div>\$460⁴</div><div>Tax Paid</div><div>\$347</div><div>Basic Pay less Taxes</div><div>\$4,671</div></div>
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¹ Weighted average BAQ. Married BAQ from NAVFAC survey is \$2,124. Single BAQ is 69% of the married rate or \$1,464.

² Weighted average tax advantage. The single rate is \$692 and the family average rate is \$654.

³ Weighted average of married BAQ, \$1,393 and single BAQ, \$961.

⁴ Weighted average tax advantage. Single rate is \$467 and average family rate is \$447.

MILITARY PAY STANDARD

E-7, 14 years of service

GS-7, Step 4
Salary

E-7
Proposed Average Military
Equivalent Salary

E-7
Current Average Military
Equivalent Salary

<p>\$ 12,150</p> <div> <div>Housing Cost</div> <div>\$2,302</div> </div> <div> <div>Food Cost</div> <div>\$1,353</div> </div> <div> <div>Income Tax Cost</div> <div>\$1,372</div> </div> <div> <div>Net Salary Standard</div> <div>\$7,123</div> </div>	<p>\$ 13,273</p> <div> <div>BAQ¹</div> <div>\$3,330</div> </div> <div> <div>BAS</div> <div>\$1,353</div> </div> <div> <div>Tax Adv.²</div> <div>\$1,036</div> </div> <div> <div>Tax Paid</div> <div>\$431</div> </div> <div> <div>Net Basic Pay Equivalent</div> <div>\$7,123</div> </div>	<p>\$ 13,499</p> <div> <div>BAQ³</div> <div>\$2,067</div> </div> <div> <div>BAS</div> <div>\$923</div> </div> <div> <div>Tax Adv.⁴</div> <div>\$667</div> </div> <div> <div>Tax Paid</div> <div>\$840</div> </div> <div> <div>Basic Pay less Taxes</div> <div>\$9,002</div> </div>
	<p>Military Basic Pay</p> <p>\$7,554</p>	<p>Current Basic Pay</p> <p>\$9,842</p>

¹ Weighted average BAQ. Married BAQ from NAVFAC survey is \$3,456. Single BAQ is 65% of the married rate or \$2,244.

² Weighted average tax advantage. The single rate is \$1,014 and the family average rate is \$1,039.

³ Weighted average of married BAQ, \$2,146 and single BAQ, \$1,390.

⁴ Weighted average tax advantage. Single rate is \$616 and average family rate is \$673.

MILITARY PAY STANDARD

O-2, 2 years of service

GS-9, Step 2
Salary

O-2
Proposed Average Military
Equivalent Salary

O-2
Current Average
Military Equivalent
Salary

\$ 13,931		\$ 15,352		\$ 13,538	
Housing Cost		BAQ ¹		BAQ ³	
\$2,466		\$3,377		\$2,170	
Food Cost		BAS		BAS	
\$1,353		\$1,353		\$637	
Income Tax Cost		Tax Adv.		Tax Advantage	
\$1,697		\$1,162 ²		\$673 ⁴	
Net Salary Standard		Tax Paid		Tax Paid	
\$8,413		\$1,047		\$1,169	
Military Basic Pay \$9,460		Net Basic Pay Equivalent \$8,413		Current Basic Pay \$10,058	
				Basic Pay less Taxes \$8,889	

¹ Weighted average BAQ. Married BAQ from NAVFAC survey is \$3,636. Single BAQ is 79% of married rate or \$2,868.

² Weighted average tax advantage. The single rate is \$1,211 and the family average rate is \$1,136.

³ Weighted average of married BAQ, \$2,336 and single BAQ, \$1,843.

⁴ Weighted average tax advantage. Single rate is \$664 and average family rate is \$678.

MILITARY PAY STANDARD

O-5, 16 years of service

GS-14, Step 3
Salary

O-5
Proposed Average Military
Equivalent Salary

O-5
Current Average Military
Equivalent Salary

<p>\$ 28,651</p> <p>Housing Cost</p> <p>\$3,883</p> <p>Food Cost</p> <p>\$1,695</p> <p>Income Tax Cost</p> <p>\$5,596</p> <p>Net Salary Standard</p> <p>\$17,477</p>	<p>\$ 30,975</p> <p>BAQ ¹</p> <p>\$5,965</p> <p>BAS</p> <p>\$1,353</p> <p>Tax Adv. ²</p> <p>\$3,207</p> <p>Tax Paid</p> <p>\$2,973</p> <p>Net Basic Pay Equivalent</p> <p>\$17,477</p>	<p>\$ 26,359</p> <p>BAQ ³</p> <p>\$3,144</p> <p>BAS</p> <p>\$637</p> <p>Tax Adv. ⁴</p> <p>\$1,507</p> <p>Tax Paid</p> <p>\$3,135</p> <p>Basic Pay less Taxes</p> <p>\$17,936</p>
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¹ Weighted average BAQ. Married BAQ from NAVFAC survey is \$6,024. Single BAQ is 83% of married rate or \$5,004.

² Weighted average tax advantage. The single rate is \$4,136 and the family average rate is \$3,151.

³ Weighted average of married BAQ, \$3,175, and single BAQ, \$2,635.

⁴ Weighted average tax advantage. Single rate is \$1,983 and average family rate is \$1,478.

STEP AT PROMOTION TO GS-7
DEPARTMENT OF DEFENSE
TECHNICAL/CLERICAL
(1975)

<u>Step</u>	<u>Number</u>	<u>Percentage</u>
1	1,836	26.7
2	451	6.6
3	882	12.8
4	622	9.1
5	923	13.4
6	547	8.0
7	568	8.3
8	737	10.7
9	127	1.8
<u>10</u>	<u>178</u>	<u>2.6</u>
Total	6,871	100.0
Average Step	4.2	

MEDIAN WEEKLY EARNINGS¹
FULL-TIME WAGE AND SALARY WORKERS

<u>Age</u>	<u>Median Earnings</u>	
	<u>Males</u>	<u>All</u>
17	104	102
18	124	116
19	139	128
20	156	133

¹ The median earnings as reported in the Department of Labor May 1975 Survey was updated by the average weekly earnings increase of workers in the private non-farm economy between May 1975 and July 1976.

Commissioned Officer and Enlisted Basic Pay Line

Pay Grade	Length of Service	Current Basic Pay	Intergrade Differentials		Proposed Basic Pay	Intergrade Differentials	
			\$	%		\$	%
C/S	-	\$52,866	\$4,954	10.3%	\$51,240	\$4,784	10.3%
O-10	30	47,912	5,637	13.3	46,456	5,454	13.3
O-9	30	42,275	4,162	10.9	41,002	4,030	10.9
O-8	30	38,113	4,971	15.0	36,972	4,822	15.0
O-7	28	33,142	6,293	23.4	32,150	6,097	23.4
O-6	22	26,849	5,778	27.4	26,053	5,603	27.4
O-5	16	<u>21,071</u>	4,306	25.7	<u>20,450</u>	4,296	26.6
O-4	10	16,765	2,801	20.1	16,154	2,800	21.0
O-3	4	13,964	3,906	38.8	13,354	3,894	41.2
O-2	2	<u>10,058</u>	2,066	25.9	<u>9,460</u>	1,946	25.9
O-1	<1	7,992	-	-	7,514	-	-
M/S	-	\$19,134	\$4,784	33.3	\$14,689	\$3,670	33.3
E-9	22	14,350	2,690	23.1	11,019	2,068	23.1
E-8	18	11,660	1,818	18.5	8,951	1,397	18.5
E-7	14	<u>9,842</u>	1,969	25.0	<u>7,554</u>	1,358	22.0
E-6	8	7,873	1,407	21.8	6,196	975	18.7
E-5	4	6,466	634	10.9	5,221	439	9.2
E-4	3	5,832	814	16.2	4,782	562	13.3
E-3	1	<u>5,018</u>	187	3.9	<u>4,220</u>	158	3.9
E-2	<1	4,831	497	11.5	4,062	419	11.5
E-1	<1	4,334	-	-	3,643	-	-

BASIC PAY TABLES UNDER THE MODERNIZED PAYS AND ALLOWANCES SYSTEM
MONTHLY RATES

Pay Grade	1	2	3	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
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COMMISSIONED OFFICER

O10	2342	2412	2487	2559	2636	2715	2796	2880	2967	3056	3147	3242	3339	3439	3543	3649	3758	3871	3987
O9	2067	2129	2193	2259	2327	2397	2469	2543	2619	2697	2778	2862	2948	3036	3127	3221	3317	3417	3520
O8	1864	1920	1978	2037	2098	2161	2226	2293	2361	2432	2505	2580	2658	2737	2820	2904	2991	3081	3173
O7	1670	1720	1771	1824	1879	1935	1993	2053	2115	2178	2244	2311	2380	2452	2525	2601	2679	2760	
O6	1478	1523	1580	1615	1664	1714	1765	1818	1873	1929	1987	2046	2108	2171	2236	2303	2372		
O5	1288	1306	1345	1386	1427	1470	1514	1560	1606	1654	1704	1755	1808	1862	1918				
O4	1095	1127	1161	1196	1232	1269	1307	1346	1387	1428	1471	1515							
O3	810	862	915	969	1013	1060	1113	1161	1215	1269	1328	1388	1408						
O2	698	743	788	869	951	979	1008	1039	1070	1102									
O1	626	667	707	728	750	773	796	820	844										

CHIEF OF STAFF: 4270

WARRANT OFFICER

W4	972	1002	1032	1063	1095	1127	1161	1196	1232	1269	1307	1346	1387	1428	1471	1515			
W3	804	828	853	878	903	932	960	989	1018	1049	1080	1113	1146	1181	1216	1252			
W2	641	660	680	700	721	743	765	788	812	836	861	887	914	941					
W1	575	592	610	628	647	667	687	707	728	750	773	796	820	845					

ENLISTED

E9	625	644	663	683	704	725	746	769	792	816	840	865	891	918	946	974	1004		
E8	539	555	572	589	606	625	643	663	683	703	724	746	768	791	815	840			
E7	482	497	512	527	543	559	576	593	611	629	648	668	688	708	730				
E6	432	445	459	473	487	501	516	532	548	564	581	598	616	634					
E5	387	398	410	422	435	448	462	475	490	504	520	535							
E4	345	376	387	398	416	428	441												
E3	352	352	362	373															
E2	338																		
E1	304																		

M/S: 1224

20 October 1976

QUADRENNIAL REVIEW OF MILITARY COMPENSATION

MODERNIZED PAY AND ALLOWANCES SYSTEM

ASSUMED IMPLEMENTATION PLAN

Implementation Assumptions

1. A new Military Basic Pay for all enlisted, warrant officer and officer grades is set at parity with Federal Civil Service pay based on whole-grade work level linkages with the General Schedule:

E-3 to GS-3

E-7 to GS-7

O-2 to GS-9

O-5 to GS-14 (preferred O-6 linkage not yet available)

2. New BAQ rates are set based on the cost of off post family quarters with bachelor BAQ at its current relationship to family BAQ. New enlisted BAS rates are set equal to BLS average food costs (currently \$3.71 per day) and a new officer monthly BAS is set based on the enlisted daily rate.

3. The new system becomes effective 1 October 1978. The current basic pay and BAQ rates are retained for about five years until all active duty members shift to the new tables without loss of basic pay.

4. The new retirement system in the RMA proposal 94-4 is implemented in FY 1979.

5. The major benefit package (leave, holidays, medical absence, insurance, modernized retirement, and health care) is retained at present levels until benefit package adjustments can be made on a General Schedule package linked to the private sector (about 2 years).

6. All bonuses and special pays are unlinked from basic pay and set at specified dollar levels.

a. Officer bonuses and special pays are set such that the cost to DoD is reduced 10%.

b. Because of reductions in enlisted basic pay levels, there will be a substantial increase in enlistment and reenlistment bonuses. Estimating the effects of enlisted payline shifts on bonuses or special

TAB H

and incentive pays are highly judgmental because there isn't an empirical data base that would support such an estimating relationship. Roughly 1/2 the enlisted force is in blue collar or pure military skills and it is those skills that would probably be underpaid if a pure general linkage is used. This suggests a probable theoretical tradeoff of 2:1 in current spendable dollars vs bonus dollars. That is, for every dollar decrease in current member disposable income, we would probably have to increase the amount spent on bonuses or special and incentive pays by 50 cents. This is a very theoretical efficiency estimate because bonus setting methodologies are not exact. But it provides a reasonable order of magnitude estimate of the effect of varying the general payline.

7. The following special pays adjustments are made:

a. Leprosy Pay and Glider Pay are eliminated.

b. The present Certain Places Pay is replaced with a more meaningful Remote Tour Pay authorized for repeated assignments to locations with tour lengths of 12 months or less, where no dependents are authorized for any military member and where they are both isolation and environmental extremes, reducing costs to DOD by 90% in FY 1979.

c. The present Sea Pay is replaced with a more meaningful special pay to recognize cumulative service on sea duty at no increased cost to DOD.

d. Diving Duty pay is restructured to provide greater incentives for saturation divers and master divers. Divers are no longer entitled to SDA pay.

e. Optometrist and Veterinarian pays are not renewed.

8. Family Separation Allowance I is based on the new bachelor BAQ rate by pay grade, and paid to all members (with dependents) separated.

9. FSA II is paid to all members (with dependents) separated.

10. The Dislocation Allowance based on the new BAQ rates is authorized at single and married rates, by pay grade, for all on PCS except those going from sea or extended field duty to sea or extended field duty, and those on accession or separation moves.

11. Overseas Station Housing Allowances based on the new BAQ rates by grade, reduce SHA costs 30%.

12. The present COLA is retained. A COLA at 60% of present rates is authorized for all unaccompanied members. These COLAs are paid to all members stationed at the locations at which COLA is now paid. Estimated at 2.1 times the current program costs.

13. A Variable Housing Allowance is enacted and implemented in FY 79 which pays a differential VHA at locations where average military off post housing costs by grade are higher than the overall CONUS average military BAQ by grade.
14. Separation pays in the RMA proposal 94-4 are implemented in FY 79 at the estimated costs to DOD for FY 1978 contained in that proposal.
15. PCS travel entitlements are extended to members in all grades.
16. Pay scales for members of reserve components on duty for training (reserve pay appropriations) are set on a basis independent of the new basic pay scales at no change in DOD FY 78 cost. Annual increases are matched to increases in the new Military Pay increases.
17. Cadet and Midshipman pay is set on an independent scale at the costs estimated in the DOD Legislative Proposal 95-19 for FY 78. Annual increases are matched to increases in the new Military Pay.
18. DOD FICA contributions are based on the new basic pay rates.
19. All other pays denominated in basic pay (such as Reenlistment Bonuses) are established on a new basis not linked to basic pay.
20. Military Pay increases occur annually at the rates used in the FY 1978 President's Budget. (FY 1978=6.5%, 79=6.0%, 80=5.75%, 81=5.25%, 82=4.75%).
21. Annual increases in the current pay and allowances system occur at the same rates. No increases are applied after the 1 October 1980 pay raise.
22. Members on sea duty or extended field duty are entitled to government housing -- or the quarters allowance when housing is not provided -- on the same basis as all other members. 10% of bachelors on sea duty would occupy existing quarters assets, the remainder draw BAQ.
23. Members assigned to bachelor quarters who are ordered TDY retain their assigned quarters.
24. Members assigned to bachelor quarters who are hospitalized retain their assigned quarters. Members authorized BAQ who are hospitalized continue to receive it unless they are provided bachelor quarters fully adequate for their grade.

25. Members assigned to bachelor quarters who are required to vacate them for TDY or hospitalization are entitled to a DLA.

26. Cadets and midshipmen at the service academies are on mandatory quarters occupancy.

27. Officers on sea duty subsist in closed messes. Enlisted members on commuted rations required to subsist in a government mess for operational or duty status reasons, or when no alternative source of meals is available, are charged the government raw food cost rounded to the nearest five cents (currently \$2.73 for a full day's ration).

28. Enlisted members on commuted rations subsisting in a government mess at their own choice -- when a real alternative is available to them -- are charged at the new commuted ration rate (\$3.71 for a full day's ration) to distinguish the portion of food delivery system for this service as distinct from contingency requirements. The current rate of discretionary usage by members on commuted rations continues.

29. Cadets and midshipmen at the service academies are on mandatory subsistence in kind.

30. Ten percent of the force uses government mess at own option.

Conversion Assumptions

31. All non-prior service and broken service accessions beginning October 1, 1978 are paid at the new pay and allowances rates.

32. Current members are paid at the new BAS rates beginning October 1, 1978.

33. Officers and warrant officers in a saved pay status from previous warrant or enlisted duty who convert to the new basic pay and BAQ are entitled to saved pay based on equivalent warrant or enlisted new basic pay rates at the time of conversion.

34. Retired members on active duty retain the previous basis of retired pay, CPI adjusted forward to date of reentry into retired status.

35. All first term reenlistments and all reserve officer integrations into the regular components beginning 1 October 1979 are paid at the new basic pay rate and BAQ rate.

36. If cash pay under the new system after the raise exceeds cash pay under the old system before the raise, involuntarily convert to new system on 1 October 1979.

37. All other personnel may choose to convert to the new basic pay rate.

38. In the old pay and allowances system reallocate 25% of pay raises in FY 1977 and 1978. No further bachelor rebates.

Supplementary Assumptions

39. All bachelors on sea duty choose to convert immediately.

40. All bachelors in quarters choose to convert by end of FY 1978.

41. Half of those in family quarters convert in FY 1980 remainder in FY 1981.

42. Subsistence charge rates all increase at same rate as Military Pay increases.

43. VHA and SHA rates increase at same rate as Military Pay increases.

SYSTEM COSTS

GENERAL SCHEDULE WHOLE GRADE LINKAGE STANDARD

The cash pay and RMC aspects of the modernized pays and allowances system can be readily compared with the current system. To assess total compensation system costs in relation to the current pays and allowances system an implementation plan was developed, based on decisions where they have been taken and QRMC recommendations where they have not. The implementation plan is shown at Tab H. Some allowance elements cannot be readily costed because of lack of data. In these cases a reasonable, but arbitrary, estimate is used. System cost details are shown so that the relative costs and cost tradeoffs can be assessed.

The cost estimates in Tab I are based on the President's FY 1977 budget submission and therefore contain October 1975 military pay scales. Previously published QRMC Staff Research Papers showing total military compensation displays were based on FY 1976 budget costs and October 1974 military pay scales. In addition, the Research Papers on military fringe benefit valuations also used FY 1976 budget data. The FY 76 budget data was used because it was the most current at the time the papers were written. This Staff Research Paper and the others contained in Volume X, which deal with structural changes to the military compensation system, were begun subsequent to the military pay raises which occurred in October 1975. Since it was necessary to use the most current pay scales in examining changes to the military compensation system, the October 1975 pay scales were used in these Staff Research Papers.

COMPARATIVE SYSTEM COSTS

\$(Million)		<u>Current</u>	<u>Modernized</u> (Tentative Costs)
<u>I. Regular Military Compensation</u>			
Basic Pay		<u>16,054.4</u>	<u>13,543.5</u>
Cash BAQ		<u>3,285.1</u>	<u>5,110.7</u>
Cash BAS		<u>1,844.4</u>	<u>2,822.5</u>
(Tax Advantage)		<u>(1,270.4)</u>	<u>(1,985.8)</u>
Subtotal		<u>21,183.9</u>	<u>21,476.7</u>
Less:			
Quarters in kind		<u>1,531.6</u>	<u>2,357.9</u>
Subsistence in kind	1	<u>694.2</u>	<u>999.7</u>
Collections from members on BAS		<u>35.0</u>	<u>319.8</u>
Add:			
Adjustments to collections		<u>-0-</u>	<u>43.0</u>
Mandatory Qts Occupancy		<u>-0-</u>	<u>-0-</u>
Short tour areas		<u>-0-</u>	<u>-0-</u>
Afloat		<u>-0-</u>	<u>43.0</u>
EM not eating in mess		<u>-0-</u>	<u>-0-</u>
Cash before taxes		<u>18,923.1</u>	<u>17,842.3</u>
Less:		<u>2,393.2</u>	<u>1,816.8</u>
Federal Income Tax		<u>1,491.0</u>	<u>1,054.1</u>
FICA		<u>902.2</u>	<u>762.7</u>
Cash after taxes		<u>16,529.9</u>	<u>16,025.5</u>
DOD FICA Contribution		<u>902.2</u>	<u>762.7</u>
Total DOD Budget Costs		<u>19,825.3</u>	<u>18,605.0</u>
DOD RMC Costs/Savings		<u></u>	<u>-1,220.3</u>
Total Government Costs		<u></u>	<u>-783.4</u>

COMPARATIVE SYSTEM COSTS

	<u>Current</u>	<u>Modernized</u> (Tentative Costs)
II. <u>Special Pays, Total</u>	<u>733.3</u>	<u>1058.8</u>
(a) Aviation Career Incentive Pay	<u>192.6</u>	<u>173.4</u>
(b) Continuation Pay, Nuclear Officer	<u>1.7</u>	<u>1.6</u>
(c) Physicians and Dentists Pay	<u>47.0</u>	<u>42.3</u>
(d) Veterinarian and Optometrist Pay	<u>1.5</u>	<u>-0-</u>
(e) Medical Officers Var. Inc. Pay	<u>66.4</u>	<u>59.8</u>
(f) Continuation Pay, Phys. & Dent.	<u>17.8</u>	<u>16.1</u>
(g) Responsibility Pay	<u>-0-</u>	<u>-0-</u>
(h) Sea Pay	<u>28.4</u>	<u>28.4</u>
(i) Certain Places Pay	<u>32.3</u>	<u>3.2</u>
(j) Diving Duty Pay	<u>3.6</u>	<u>7.0</u>
(k) Enlistment Bonus	<u>28.5</u>	<u>65.5</u>
(l) Reenlistment Bonus (including Nuclear Reenlistment bonus)	<u>275.0</u>	<u>625.0</u>
(m) Proficiency Pay	<u>38.5</u>	<u>36.5</u>
III. <u>Incentive Pay, Hazardous Duty, Total</u>	<u>79.5</u>	<u>79.5</u>
(a) Flying Duty Pay, Total	<u>30.6</u>	<u>30.6</u>
Crew Member, Enlisted	<u>25.4</u>	<u>25.4</u>
Non-crew Member	<u>5.2</u>	<u>5.2</u>
(b) Submarine Duty Pay	<u>25.4</u>	<u>25.4</u>
(c) Parachute Jumping Pay	<u>21.1</u>	<u>21.1</u>
(d) Demolition Pay	<u>2.4</u>	<u>2.4</u>

COMPARATIVE SYSTEM COSTS

	<u>Current</u>	<u>Modernized</u> (Tentative Costs)
IV. <u>Retirement Pay Cost Accrual</u>	<u>4,570.0</u>	<u>3,258.3</u>
V. <u>Health Care(patient care) System</u>	<u>3,889.9</u>	<u>3,889.9</u>
VI. <u>Reimbursements</u>	<u>1,901.1</u>	<u>2,237.2</u>
Station Allowances Overseas, Total	<u>194.9</u>	<u>237.6</u>
(1) Cost of Living	<u>72.2</u>	<u>151.7</u>
(2) Housing	<u>90.3</u>	<u>63.2</u>
(3) Temporary Lodging	<u>32.4</u>	<u>22.7</u>
Family Separation Allowance, Total	<u>37.2</u>	<u>40.4</u>
1) On PCS, no government qtrs.	<u>5.1</u>	<u>8.3</u>
2) On PCS, dependents not author.	<u>17.2</u>	<u>17.2</u>
(3) Afloat	<u>8.6</u>	<u>8.6</u>
(4) On TDY	<u>6.3</u>	<u>6.3</u>
PCS Travel Costs	<u>1,669.0</u>	<u>1,879.1</u>
Variable Housing Allowance	<u>-0-</u>	<u>80.1</u>
VII. <u>Terminal Leave Pay</u>	<u>285.7</u>	<u>216.1</u>
VIII. <u>Severance Pays, Total</u> (includes Lump Sum Readjustment pay, Disability Severance Pay, and Non-Promotion Severance Pay)	<u>65.8</u>	<u>76.0</u>
IX. <u>Reserve Basic Pays</u>	<u>1,335.2</u>	<u>1,335.2</u>
X. <u>Cadet and Midshipman Pay</u>	<u>65.9</u>	<u>61.1</u>
<u>TOTAL SYSTEM COSTS (Recurring)</u>	<u>32,751.7</u>	<u>30,817.1</u>
<u>TOTAL SYSTEM COSTS (Conversion)</u>	<u>-0-</u>	<u>790.4</u>

SYSTEM COSTS

INTERGRADE GS/WG MIX LINKAGE STANDARD

To illustrate the impact to the military compensation system which results from using a GS/WG mix linkage instead of GS only, Tab J shows pay standards at the linkage grades, commissioned officer and enlisted basic paylines, basic pay tables, and a comparison of total compensation system costs with that of the current system and the GS linkage system.

The cost estimates in Tab J are based on the President's FY 1977 budget submission and therefore contain October 1975 military pay scales. Previously published QPMC Staff Research Papers showing total military compensation displays were based on FY 1976 budget costs and October 1974 military pay scales. In addition, the Research Papers on military fringe benefit valuations also used FY 1976 budget data. The FY 76 budget data was used because it was the most current at the time the papers were written. This Staff Research Paper and the others contained in Volume X, which deal with structural changes to the military compensation system, were begun subsequent to the military pay raises which occurred in October 1975. Since it was necessary to use the most current pay scales in examining changes to the military compensation system, the October 1975 pay scales were used in these Staff Research Papers.

Military Pay Standard
E-3, 1 Year of Service

Civilian Salary ^{1/}	E-3 Proposed Average Military Equivalent Salary	E-3 Current Average Military Equivalent Salary
\$9,101	\$9,548	
Housing Cost \$1,995	BAQ \$1,691	
Food Cost \$1,037	BAS \$1,353	
Income Tax Cost \$801	Tax Advantage \$762	
	Tax Paid \$474	
Net Salary Standard \$5,268	Net Basic Pay Equivalent \$5,268	
		\$7,511
		BAQ \$1,110
		BAS \$923
		Tax Advantage \$460
		Tax Paid \$347
		Basic Pay Less Taxes \$4,671
	Military Basic Pay - \$5,742	Current Basic Pay \$5,018

^{1/} Weighted average of: 13% of way between GS-3 and GS-5 and 79% of way between WG-5 and WG-6.

Military Pay Standard
E-7, 14 Years of Service

Civilian Salary ¹	E-7 Proposed Average Military Equivalent Salary	E-7 Current Average Military Equivalent Salary
\$13,918	\$14,807	
Housing Cost \$2,465	BAG \$3,300	\$13,499
Food Cost \$1,353	BAS \$1,353	BAG \$2,067
Income Tax Cost - \$1,697	Tax Advantage \$1,049	BAS \$923
	Tax Paid - \$702	Tax Advantage \$667
Net Salary Standard \$8,403	Military Basic Pay \$9,105	Tax Paid \$840
	Net Basic Pay Equivalent \$8,403	Current Basic Pay \$9,842
		Basic Pay less Taxes \$9,002

¹ Weighted average of: 18% of way between GS-7 and GS-9 and 24% of way between WS-9 and WS-10.

MILITARY PAY STANDARD
O-2, 2 Years of Service

Civilian Salary ¹	O-2 Proposed Average Military Equivalent Salary	O-2 Current Average Military Equivalent Salary
\$14,332	\$15,721	
Housing Cost \$2,503	BAQ \$3,377	\$13,538
Food Cost \$1,353	BAS \$1,353	BAS \$637
Income Tax Cost \$1,774	Tax Advantage \$1,168	Tax Advantage \$673
	Tax Paid \$1,121	Tax Paid \$1,169
Net Salary Standard \$8,702	Net Basic Pay Equivalent \$8,702	Basic Pay Less Taxes \$8,889
	Military Basic Pay \$9,823	Current Basic Pay \$10,058

¹ Intergrade link, 14% of way between GS-9 and GS-11.

MILITARY PAY STANDARD
O-5, 16 Years of Service

Civilian Salary ¹	O-5 Proposed Average Military Equivalent Salary	O-5 Current Average Military Equivalent Salary
	\$31,972	
\$29,790		
Housing Cost	BAQ	
\$3,988	\$5,965	
Food Cost	BAS	
\$1,695	\$1,353	
Income Tax Cost	Tax Advantage	
\$5,998	\$3,347	
Net Salary Standard	Tax Paid	
\$18,109	\$3,198	
	Net Basic Pay Equivalent	
	\$18,109	
		\$26,359
		BAQ
		\$3,144
		Tax Advantage
		\$1,507
		Tax Paid
		\$3,135
		Basic Pay Less Taxes
		\$17,936
	Military Basic Pay \$21,307	Current Basic Pay \$21,071
		BAS \$637

¹ Intergrade link, 24% of way between GS-14 and GS-15.

COMMISSIONED OFFICER AND ENLISTED BASIC PAY LINE

Pay Grade	Length of Service	Current Basic Pay	GS Whole Grade			GS/WG Intergrade		
			Basic Pay ¹	Intergrade Differentials \$	Intergrade Differentials %	Basic Pay ²	Intergrade Differentials \$	Intergrade Differentials %
C/S	-	\$52,866	\$51,240	\$4,784	10.3%	\$53,389	\$4,986	10.3%
O-10	30	47,912	46,456	5,454	13.3	48,403	5,682	13.3
O-9	30	42,275	41,002	4,162	10.9	42,721	4,199	10.9
O-8	30	38,113	36,971	4,971	15.0	38,522	5,025	15.0
O-7	28	33,142	32,150	6,293	23.4	33,497	6,352	23.4
O-6	22	26,849	26,053	5,778	27.4	27,145	5,838	27.4
O-5	16	<u>21,071</u>	<u>20,450</u>	4,306	25.7	<u>21,307</u>	4,490	26.7
O-4	10	16,765	16,154	2,801	20.1	16,817	2,925	21.1
O-3	4	13,964	13,354	3,906	38.8	13,892	4,069	41.4
O-2	2	<u>10,053</u>	<u>9,460</u>	2,066	25.9	<u>9,823</u>	2,021	25.9
O-1	<1	7,992	7,514	-	-	7,802	-	-
M/S	-	\$19,134	\$14,689	\$4,784	33.3	\$17,704	\$4,423	33.3
E-9	22	14,350	11,019	2,690	23.1	13,281	2,492	23.1
E-8	18	11,660	8,951	1,818	18.5	10,789	1,684	18.5
E-7	14	<u>9,842</u>	<u>7,554</u>	1,969	25.0	<u>9,105</u>	1,370	17.7
E-6	8	7,873	6,196	1,407	21.8	7,735	983	14.6
E-5	4	6,466	5,221	634	10.9	6,752	445	7.1
E-4	3	<u>5,832</u>	4,782	814	16.2	6,307	565	9.8
E-3	1	<u>5,018</u>	<u>4,220</u>	187	3.9	<u>5,742</u>	216	3.9
E-2	<1	4,831	4,062	497	11.5	5,526	570	11.5
E-1	<1	4,334	3,643	-	-	4,956	-	-

¹Basic pay line based on linkage to General Schedule grades only.

²Basic pay line based on linkage to combination of General Schedule and Wage Grade.

BASIC PAY TABLES UNDER THE MODERNIZED PAYS AND ALLOWANCES SYSTEM

MONTHLY RATES

Pay Grade	1	2	3	4	5	6	8	10	12	14	16	18	20	22	24	26	28	30	32
O10	2,442	2,515	2,590	2,668	2,748	2,830	2,915	3,002	3,092	3,185	3,281	3,379	3,480	3,584	3,692	3,803	3,917	4,034	4,155
O9	2,152	2,217	2,284	2,353	2,424	2,497	2,572	2,649	2,728	2,810	2,894	2,981	3,070	3,162	3,257	3,355	3,454	3,560	3,667
O8	1,940	1,998	2,058	2,120	2,184	2,250	2,318	2,388	2,460	2,534	2,610	2,688	2,769	2,852	2,938	3,026	3,117	3,210	3,306
O7	1,740	1,792	1,846	1,901	1,958	2,017	2,078	2,140	2,204	2,270	2,338	2,408	2,480	2,554	2,631	2,710	2,791	2,875	
O6	1,540	1,586	1,634	1,683	1,733	1,785	1,839	1,894	1,951	2,010	2,070	2,132	2,196	2,262	2,330	2,400	2,472		
O5	1,321	1,361	1,402	1,444	1,487	1,532	1,578	1,625	1,674	1,724	1,776	1,829	1,884	1,941	1,999				
O4	1,140	1,174	1,209	1,245	1,282	1,320	1,360	1,401	1,443	1,486	1,531	1,577							
O3	848	903	958	1,015	1,074	1,134	1,195	1,257	1,320	1,384	1,449	1,515							
O2	725	772	819	868	918	969	1,021	1,074	1,128	1,183	1,239	1,296							
O1	650	692	734	776	819	862	905	948	992	1,036	1,081	1,126							

E-9 MS \$1,475

WARRANT OFFICER

W4	1,014	1,044	1,075	1,107	1,140	1,174	1,209	1,245	1,282	1,320	1,360	1,401	1,443	1,486	1,531	1,577			
W3	836	861	887	914	941	969	998	1,028	1,059	1,091	1,124	1,158	1,193	1,229	1,266	1,304			
W2	707	728	750	772	795	819	844	869	895	922	950	979	1,008	1,038					
W1	615	633	652	672	692	713	734	756	779	802	826	851	877	903					

ENLISTED

E9	754	777	800	824	849	874	900	927	955	984	1,014	1,044	1,075	1,107	1,140	1,174	1,209		
E8	650	669	689	710	731	753	776	799	823	848	873	899	926	954	983	1,012			
E7	582	599	617	636	655	675	695	716	737	759	782	805	829	854	880				
E6	540	556	573	590	608	626	645	664	684	705	726	748	770	793					
E5	501	516	531	547	563	580	597	615	633	652	672	692							
E4	488	498	511	526	544	560	577												
E3	479	479	493	508															
E2	461																		
E1	413																		

O-10 C/S \$4,449

COMPARATIVE SYSTEM COSTS
(\$ MILLION)

<u>I. Regular Military Compensation</u>	<u>Current</u>	<u>Modernized GS Linkage (Tentative Costs)</u>	<u>Modernized GS/WG Linkage (Tentative Costs)</u>
Basic Pay	<u>16,054.4</u>	<u>13,543.5</u>	<u>16,520.9</u>
Cash BAQ	<u>3,285.1</u>	<u>5,110.7</u>	<u>5,110.7</u>
Cash BAS	<u>1,844.4</u>	<u>2,822.5</u>	<u>2,822.5</u>
(Tax Advantage)	<u>(1,270.4)</u>	<u>(1,985.8)</u>	<u>(2,133.3)</u>
Subtotal	<u>21,183.9</u>	<u>21,476.7</u>	<u>24,454.1</u>
Less:			
Quarters in kind	<u>1,531.6</u>	<u>2,357.9</u>	<u>2,357.9</u>
Subsistence in kind	<u>694.2</u>	<u>999.7</u>	<u>999.7</u>
Collections from members on BAQ	<u>35.0</u>	<u>319.8</u>	<u>319.8</u>
Add:			
Adjustments to collections	<u>-0-</u>	<u>43.0</u>	<u>43.0</u>
Mandatory Qts Occupancy	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>
Short tour areas	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>
Afloat	<u>-0-</u>	<u>43.0</u>	<u>43.0</u>
EM not eating in mess	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>
Cash before taxes	<u>18,923.1</u>	<u>17,842.3</u>	<u>20,819.7</u>
Less:	<u>2,393.2</u>	<u>1,816.8</u>	<u>2,477.7</u>
Federal Income Tax	<u>1,491.0</u>	<u>1,054.1</u>	<u>1,566.6</u>
FICA	<u>902.2</u>	<u>762.7</u>	<u>911.1</u>
Cash after taxes	<u>16,529.9</u>	<u>16,025.5</u>	<u>18,322.0</u>
DOD FICA Contribution	<u>902.2</u>	<u>762.7</u>	<u>911.1</u>
Total DOD Budget Costs	<u>19,825.3</u>	<u>18,605.0</u>	<u>21,750.8</u>
DOD RMC Costs/Savings		<u>-1,220.3</u>	<u>1,925.5</u>
Total Government Costs		<u>-783.4</u>	<u>1,849.9</u>

COMPARATIVE SYSTEM COSTS

	(\$ Million)	Current	Modernized GS Linkage (Tentative Costs)	Modernized GS/WG Linkage (Tentative Costs)
II. <u>Special Pays, Total</u>		733.3	1058.8	671.8
(a) Aviation Career Incentive Pay		192.6	173.4	173.4
(b) Continuation Pay, Nuclear Officer		1.7	1.6	1.6
(c) Physicians and Dentists Pay		47.0	42.3	42.3
(d) Veterinarian and Optometrist Pay		1.5	-0-	-0-
(e) Medical Officers Var. Inc. Pay		66.4	59.8	59.8
(f) Continuation Pay, Phys. & Dent.		17.8	16.1	16.1
(g) Responsibility Pay		-0-	-0-	-0-
(h) Sea Pay		28.4	28.4	28.4
(i) Certain Places Pay		32.3	3.2	3.2
(j) Diving Duty Pay		3.6	7.0	7.0
(k) Enlistment Bonus		28.5	65.5	28.5
(l) Reenlistment Bonus (including Nuclear Reenlistment bonus)		275.0	625.0	275.0
(m) Proficiency Pay		38.5	36.5	36.5
III. <u>Incentive Pay, Hazardous Duty, Total</u>		79.5	79.5	79.5
(a) Flying Duty Pay. Total		30.6	30.6	30.6
Crew Member, Enlisted		25.4	25.4	25.4
Non-crew Member		5.2	5.2	5.2
(b) Submarine Duty Pay		25.4	25.4	25.4
(c) Parachute Jumping Pay		21.1	21.1	21.1
(d) Demolition Pay		2.4	2.4	2.4

COMPARATIVE SYSTEM COSTS

(\$ Million)

	<u>Current</u>	<u>Modernized GS Linkage (Tentative Costs)</u>	<u>Modernized GS/WG Linkage (Tentative Costs)</u>
IV. <u>Retirement Pay Cost Accrual</u>	<u>4,570.0</u>	<u>3,258.3</u>	<u>4,094.0</u>
V. <u>Health Care(patient care) System</u>	<u>3,889.9</u>	<u>3,889.9</u>	<u>3,889.9</u>
VI. <u>Reimbursements</u>	<u>1,901.1</u>	<u>2,237.2</u>	<u>2,237.2</u>
Station Allowances Overseas, Total	<u>194.9</u>	<u>237.6</u>	<u>237.6</u>
(1) Cost of Living	<u>72.2</u>	<u>151.7</u>	<u>151.7</u>
(2) Housing	<u>90.3</u>	<u>63.2</u>	<u>63.2</u>
(3) Temporary Lodging	<u>32.4</u>	<u>22.7</u>	<u>22.7</u>
Family Separation Allowance, Total	<u>37.2</u>	<u>40.4</u>	<u>40.4</u>
(1) On PCS, no government qtrs.	<u>5.1</u>	<u>8.3</u>	<u>8.3</u>
(2) On PCS, dependents not author.	<u>17.2</u>	<u>17.2</u>	<u>17.2</u>
(3) Afloat	<u>8.6</u>	<u>8.6</u>	<u>8.6</u>
(4) On TDY	<u>6.3</u>	<u>6.3</u>	<u>6.3</u>
PCS Travel Costs	<u>1,669.0</u>	<u>1,879.1</u>	<u>1,879.1</u>
Variable Housing Allowance	<u>-0-</u>	<u>80.1</u>	<u>80.1</u>
VII. <u>Terminal Leave Pay</u>	<u>285.7</u>	<u>216.1</u>	<u>263.6</u>
VIII. <u>Severance Pays, Total</u> (includes Lump Sum Readjustment pay, Disability Severance Pay, and Non-Promotion Severance Pay)	<u>65.8</u>	<u>76.0</u>	<u>76.0</u>
IX. <u>Reserve Basic Pays</u>	<u>1,335.2</u>	<u>1,335.2</u>	<u>1,335.2</u>
X. <u>Cadet and Midshipman Pay</u>	<u>65.9</u>	<u>61.1</u>	<u>61.1</u>
<u>TOTAL SYSTEM COSTS (Recurring)</u>	<u>32,751.7</u>	<u>30,817.1</u>	<u>\$34,459.1</u>
<u>TOTAL SYSTEM COSTS (Conversion)</u>	<u>-0-</u>	<u>790.4</u>	<u>22.5</u>

THE SALARY SYSTEM

**A Staff Research Paper
Prepared For
The Third Quadrennial Review
Of Military Compensation**

19 January 1977

8 Dec 1976
Rev 19 Jan 1977

QUADRENNIAL REVIEW OF MILITARY COMPENSATION

STAFF RESEARCH PAPER

SALARY SYSTEM OF MILITARY PAY

I. Purpose: To describe a system to implement a military salary system, including pay setting methods, candidate paylines and pay tables; and to provide system cost comparisons and transition cost estimates.

II. Introduction: The 1975 Quadrennial Review of Military Compensation studied the feasibility and desirability of a salary system for military personnel to replace the current pays and allowances systems. The principal features of the salary system are:

a. A single payment or new Military Pay will replace the elements of military compensation which currently comprise Regular Military Compensation (RMC) -- basic pay, quarters (cash and in-kind), subsistence (cash and in-kind), and the tax advantage which results because the allowances are not subject to income tax.

b. In keeping with the principle of "equal pay for substantially equal work," all military personnel of the same grade and longevity step will be paid the same basic Military Pay.

c. A system of bonuses and special and incentive pays will be retained to meet personnel requirements in specific skills.

d. As a result of more frequent relocations, military personnel experience significantly greater housing costs than their civilian counterparts. Therefore, under a salary system in which military salaries are set equal to civilian salaries at equivalent work levels, recognition of the greater housing expenses of military personnel will be achieved through an extensive Variable Housing Allowance (VHA) system.

Military Pay levels in this system are based on work level linkages with the Federal Civil Service. A number of standards are useable, including linkage to:

- The General Schedule (GS) at the nearest whole grade to the work level of the selected military grade.
- The GS at the intergrade work level point equal to the work level of the selected military grade.
- For the enlisted force the mix of the nearest whole grades in the GS and the Wage Grade (WG) systems equal to the mix of white and blue collar jobs.
- For the enlisted force, the same mix but using the intergrade work levels equal to the selected military grades but using the GS/WG mix for the enlisted force.

The first alternative is used for illustrative purposes in this paper for consistency with the QRMC recommendations in the non-taxable modernized pay and allowances system.¹

The QRMC considered a number of possible linkage points for setting military paylines. The preference was for two points for each

¹ Alternative work level linkage standards may be required to make the system effective in meeting manpower requirements. QRMC Staff consideration of this question is provided in the Staff Research Paper "Modernized Pay and Allowances System, 12 November 1976 (Revised 15 January 1977) pp 13-16.

payline: E-3 and E-7 for the enlisted payline, and O-2 and O-6 for the officer payline.

III. Military Pay Tables: The military pay tables are built around the linkage grades. The linkage grades used are E-3, E-7, O-2 and O-5. The preferred O-6 linkage is not used because O-6 linkage data was not developed in staff research on linkage. Intergrade relationships from the current basic pay table have been used to establish the enlisted and officer paylines because those relationships have been developed to meet force management needs. Intragrade differentials from the current basic pay table could not be used because they were irregular and varied widely. Regularized intragrade progression rates are developed from civilian practices to provide meaningful increases to recognize performance improvements that on the average result from additional time in service. Steps were added at the one year point, to match private sector practices for entering employees, and at the 24, 28, 30 and 32 year points to smooth out departure patterns in the senior grades by serving as an inducement to remain on active duty consistent with personnel management objectives. Finally, the three special pay grades, O-1E, O-2E and O-3E, for officers who have over four years of enlisted service were eliminated at no significant increase in cost. The 1971 All Volunteer Force pay raises have eliminated the pay inversions which made that separate pay table desirable. Construction of the new Military Pay System is detailed in Tab A through E. The military pay tables are shown at Tab F.

IV. Implementation: To provide a comprehensive and integrated compensation plan based on the salary system a detailed list of 47 related compensation elements and transition assumptions is provided at Tab G. The major features in that plan are:

- The new system becomes effective October 1973.
- The current basic pay and allowance rates will remain in effect on an optional basis for an additional period of about five years until all active duty members shift to the Military Pay tables without loss of pay. No pay raises will be made to the old rates after October 1980.
- The DoD proposal for military retirement modernization will be adopted.
- Linkages are to the General Schedule whole grade nearest the work level of the military linkage grade. The enlisted linkage is to the GS only, not a mix of white collar and blue collar.
- Bonuses and special pays will be set at specified levels instead of attempting to relate them to the proposed Military Pay rates.
- Enlisted bonuses and special pays in critical specialties will be used extensively because blue collar occupations were excluded from the linkage.
- PCS travel entitlements are extended to junior enlisted members.
- The "fair market" rental system (FMR) for government housing is adopted.
- Since Military Pay is set equal to General Schedule salaries, an extensive Variable Housing Allowance (VHA) system will be required to compensate military per-

sonnel for the greater housing costs they must bear in relation to their civilian counterparts.

Comparative systems cost are:

	Comparative Costs ¹ (\$ Millions)	
	<u>Current System</u>	<u>Salary System</u>
Basic Pay	\$16,054.4	\$21,769.2
BAQ	3,285.1	-
QIK	1,531.6	1,167.2
BAS	1,844.4	-
SIK	729.2	762.9
(Tax Advantage)	<u>(1,270.4)</u>	<u>-</u>
RMC ²	\$ 22,454.3	\$21,769.2
DoD Personnel Budget Costs of		
RMC items ³	<u>18,923.1</u>	<u>19,839.1</u>
Other Elements ⁴	<u>13,828.6</u>	<u>14,833.4</u>
Total DoD System Costs (Recurring)	\$32,751.7	\$34,672.5
Transition Costs		\$1,210.6

Detailed cost comparisons are shown in Tab H to permit evaluation of separate elements in the context of the total system.

1

Cost estimates are based on the President's FY 77 budget submission.

2

Sum of Basic Pay, BAQ, BAS, and Tax Advantage in the current system.

3

RMC less QIK, SIK, and Tax Advantage in the current system; Military Pay less collections for quarters and subsistence in salary system.

4

Includes Retirement pay accrual of \$4,570.0 million under current system and \$3,980.4 million under the proposed salary system.

V. Summary:

At Tab D, current average cash Regular Military Compensation (RMC) levels on the payline are compared to the salary system military paylines which are produced by linking to the General Schedule and then fitting the payline to conform to the shape of the current military basic pay intergrade differentials. Tab D and the military pay tables under the salary system at Tab F show that:

a. Military pay levels under the salary system are greater than current average cash RMC levels on the officer payline.

b. Military pay levels on the enlisted payline are less than current average cash RMC levels.

The effect of these changes together with the probable increased use of bonuses will result in a higher proportion of the force being on "shadow" paylines above the common military pay base. The acceptability of this in terms of performance motivation and retention will require management judgments not necessarily reducible to quantitative comparisons.¹

¹

See QRMC Staff Research Paper "Modernized Military Pay and Allowances System", November 12, 1976 (Rev 15 Jan 77) pp 13-16.

Military Pay Tables Under The Salary System

The military pay tables under the salary system are constructed using the following criteria:

Pay Table Criteria.

a. Linkage

The military pay is based on whole grade work level linkages with the General Schedule at the following points: E-3 to GS-3 and E-7 to GS-7; O-2 to GS-9 and O-5 to GS-14.

b. Core Longevity Steps.

The construction of the pay tables centers around promotion points for each of the grades and the number of years spent in the grade until promotion to the next grade and until retirement, or force out, after promotion to the grade. Along with accession and retention considerations, these features of the military personnel management system will serve as a guide in constructing the military pay tables. The point in the grade at which promotion occurs is identified as the "core" longevity step for that grade. In the officer pay table, the "core" longevity step is the DOPMS promotion flow point. In the enlisted pay table, the "core" longevity step is the average years of service at promotion in the Enlisted Management Systems Plan. The line which connects the pay at the core longevity steps in the military pay tables is defined as the payline. Tab B shows the longevity step at each pay grade which

forms the two military paylines.

c. Military Pay at the Linkage Grades.

Military pay rates at the two linkage points in each payline are set at parity with the General Schedule, i.e., identical to the salaries of the General Schedule grades which result from entry into or promotion to those grades. Data on the entire General Schedule is not yet available. Until it is, data on DoD civilians will be used to represent it. The General Schedule linkage salaries will be determined as follows:

(1) In calendar year 1975, the average step upon promotion to GS-3 of Department of Defense civilians, consisting largely of employees in the technical/clerical occupational grouping, was Step 2. Therefore, the E-3 military pay at the core longevity step (over one year of service) is set equal to the salary of GS-3, Step 2, or \$7,339 per year.

(2) Generally speaking, GS-7 occupations which are analogous to jobs filled by the E-7 are those which are classified in the technical/clerical schedule under the new Civil Service salary schedules proposed by the President's Panel on Federal Compensation (Rockefeller Panel). Therefore, the average step upon promotion to GS-7 in technical/clerical occupations is used to set the E-7 military pay at the core longevity step. This will be consistent with the recommendation of the Rockefeller Panel to separate

the current General Schedule into two schedules, one covering executive/professional/administrative occupations and the other covering technical/clerical occupations. Salaries of executive/professional/administrative employees will be set on a national average basis while salaries of technical/clerical employees will be set on a locality basis. In 1975, the average step on promotion to GS-7 of Department of Defense civilians in the technical/clerical occupational grouping was Step 4 to the nearest whole step (See Tab C). The E-7 military pay at the core longevity step (over 14 years of service) is set equal to the salary of GS-7, Step 4, or \$12,150 per year.

(3) The 0-2 occupations at the GS-9 level are generally those that would be classified in the executive/professional/administrative schedule, whose salaries will be set on a national average basis. The military pay of the 0-2 is, therefore, based on the average step at promotion to GS-9 in professional and administrative occupations. In 1975, the average step on promotion of Department of Defense civilians in these occupational groupings was Step 2 to the nearest whole step. The 0-2 military pay at the core longevity step (over two years of service) is set equal to the salary of GS-9 Step 2, or \$13,931 per year.

(4) In 1975, the average step upon promotion to GS-14 of Department of Defense civilians, all of whom are classified in professional/administrative occupations, was Step 3. Therefore, the 0-5 military pay at the core longevity step (over 16 years of service) is set based

equal to the salary of GS-14, Step 3, or \$28,651 per year.

d. Intergrade Differentials.

The intergrade differential sets the difference in military pay rates between grades at the core longevity step. The differentials which currently exist in basic pay at the core longevity steps is used in setting the core military pay levels between the linkage grades in each payline. The current differentials in basic pay was selected as appropriate intergrade differentials because basic pay is the element of military compensation which has been shaped over a period of years to meet the unique personnel management requirements of the services and the levels of which reflect work level distinctions between the grades. The shape of the General Schedule payline was not considered because it has been structured to meet personnel requirements of a civilian force significantly different from that of the military. RMC "payline" differentials were also considered for this purpose. They were rejected because three elements of RMC--basic allowance for quarters, basic allowance for subsistence, and tax advantage--bear no relationship to the purpose of the intergrade differentials under a salary type system.

e. Longevity Steps.

(1) Time Interval Between Steps.

Longevity pay increases serve as an economic incentive to remain in service and are to recognize and reward individual performance improvements which, on the average, occur with additional time spent in service. The annual matching pay increases keep overall military pay abreast of wage movements in the private sector. The two-year intervals which occur between most of the longevity steps in the present pay table are retained in the military pay tables as reasonable intervals between performance-related increases. However, exceptions to this general rule are made by retaining the longevity step at the three years of service point which is in the current basic pay table and adding a longevity pay step at the 1-year point. Therefore, one year intervals occur between longevity step increases in the first four years of service and two-year intervals thereafter. The shorter time period between longevity pay increases in the first four years of service is consistent with the practice in the private sector of frequent pay increases in the early years of employment. Kramer Associates, Inc. in a study of entry level compensation practices in the civilian sector for the Third QRMC,¹ reported that:

- Entry-level professional employees, who correspond roughly to newly commissioned officers, are promoted after one year and, on the average, receive salary increases of 15 percent.

¹ Entry Level Compensation Practices In The Civilian Sector, Kramer Associates, Inc., August 6, 1976.

- Employees in entry-level office occupations can generally attain the second level in three to six months.

- Apprentices in skilled trade programs, usually three to four years in duration, receive a pay increase after six months and another increase after one year.

In the enlisted military pay table, these early pay increases upon entry are provided through promotion. Under enlisted force management plans, promotion to E-2 occurs after six months service and promotion to E-3 occurs after one year. However, under the current basic pay tables the entry commissioned officer does not receive a pay increase for two years when, under DOPMS, promotion to O-2 occurs. Therefore, the one-year longevity step pay increase is added to give earlier recognition to the performance improvement achieved by the officer after commissioning.

(2) Number of Longevity Steps.

(a) Officer Military Pay Table.

There were several factors considered in determining the number of longevity steps in the officer military pay table. These considerations include the Defense Officer Personnel Management System (DOPMS), which defines the longevity steps for each grade step at which normal promotion will occur. Longevity increases beyond the DOPMS promotion flow points are unnecessary since the necessity for providing an economic incentive is eliminated. However, since the promotion points contained in

DOPMS are subject to change, a measure of flexibility is provided in the pay table by adding one longevity pay increase past the normal promotion point to the next grade. Under this criteria, the longevity pay increases terminate at the following steps: 0-1, 3 years; 0-2, 6 years; 0-3, 12 years; 0-4, 18 years; 0-5, 24 years.

Additional longevity steps are then added to those determined under the DOPMS criteria for grades 0-1, 0-2, and 0-3. This permits elimination of the current separate table for commissioned officers with enlisted service (0-1E, 0-2E, and 0-3E). When that separate table was originally established, the major justification was to preclude pay inversions on initial commissioning and to avoid inequities for those who were commissioned with considerably more than four years enlisted service. The 1971 all-volunteer forces pay raise eliminated the first problem area. The second problem can be eliminated by extending the basic commissioned officer military pay table intragrade progression to cover personnel commissioned with prior enlisted service. The number of additional longevity steps for each of the grades are created based on the following considerations:

- At least ten years of commissioned service are required for retirement at twenty years. Therefore, ten years service would be the normal maximum service that an

enlisted member would have upon being commissioned.

- Under DOPMS the normal flow point to O-3 is at four years of commissioned service. Thus fourteen years would be the normal maximum years of total service an officer would have upon promotion to O-3.

- Under DOPMS an officer remains six years in grade O-3 before promotion to O-4. The officer with the normal maximum enlisted service who was promoted in "due course" would reach retirement eligibility of 20 years while in grade O-3. Therefore, longevity increases in grade O-3 are extended to the 18 year point to provide longevity increases up to the 20 year retirement point.

- Longevity steps for O-2 end at the 14 year point and for O-1 end at the 12 year point since under the DOPMS flow points, promotion or force out will occur before going past these points.

- In the main segment of the officer corps, less than 3% are currently in these "extra" longevity steps. Under DOPMS those longevity steps will be limited essentially to officers with prior enlisted service since regular commissioned officers will be promoted or forced out before reaching these longevity steps. The additional cost of paying the officers who are currently in these extra longevity steps at the proposed military pay rates would only be approximately \$1.6 million.

DOPMS criteria cannot be applied in determining the terminal longevity steps for grades 0-6 through 0-10 since there are no promotion flow points to general and flag officer grades. For grade 0-6, longevity steps are added at the 24 and 28 years service points to smooth out the 0-6 departures from service by serving as an inducement to remain on active duty. This is consistent with the design of the Retirement Modernization Act (RMA) to encourage service to 30 years before retirement. Longevity increases are also added for general and flag officer grades at the 28, 30, and 32 year service points. These steps are added in recognition of the fact that most general and flag officers serve past 30 years before retirement, and provide remuneration for that service.

(b) Enlisted Military Pay Table.

Unlike the officer force, the enlisted force does not have common promotion points nor are promotions specifically managed to occur at a given point. There are considerable differences in the number of years at promotion among the services. For these reasons, there is a wide dispersion around the "core" longevity step of enlisted personnel in each pay grade; this reduces the usefulness of the "core" longevity step as a basis for differential longevity increase rates to contribute to continuation policies.

Therefore, while the identification of "core" longevity steps based on an objective enlisted force is used as a guide in establishing an enlisted military payline, it is not applied rigidly in constructing the pay

table. The pay table must have the flexibility to fit changing force objectives and promotion opportunities in a force less rigidly controlled by "up-or-out" policies than is the officer force. To provide this flexibility, the longevity steps for each grade must extend to the point to which continuation on active service is authorized. Therefore, the enlisted military pay table will be structured such that longevity pay increases occur up to that longevity step in each grade just preceding the authorized tenure for that grade under current enlisted management plans.

The authorized tenure under current management plans are as follows: E-4, 10 years; E-5, 20 years; E-6, 23 years, E-7, 26 years; E-8, 28 years; E-9, 30 years.

Since the average longevity step at which promotion occurs in each grade can vary from the enlisted management objective "core" longevity step over a period of time, and because these promotion points will tend to vary among the services, a constant percentage intragrade differential is applied to all of the longevity steps in each pay grade.

f. Intragrade Differentials.

Intragrade differentials set the dollar differences between longevity steps within a particular pay grade. The current basic pay tables have no regular pattern of differentials. They range from 1.2% to 15.8% in an

irregular array. To rationalize intragrade differentials in the military pay tables, civilian practice in this area is used as a guide. However, the military force is managed primarily on the basis of entry at the bottom and career progression through the grades on a competitive performance basis. Therefore, intragrade longevity increases in pay will be kept subordinate in importance to the increases which result from promotion.

The General Schedule salary table is constructed such that there is a 30% differential between Step 1 and Step 10 in all of the grades. This averages out to an intragrade differential of about 3% between steps.

There is no consistent pattern of practice in the private sector regarding intragrade differentials. A 1974 survey of compensation practices by the Civil Service Commission showed that while length-of-service pay increases are quite common in state and local governments, they play a much less significant role in employee pay adjustment practices for private and non-profit organizations. In private sector organizations which use a step rate pay structure, the median intragrade step differential is between 3% and 4%.

An intragrade differential of 3% is established for the military grades. This differential was chosen because it is consistent with the intragrade differentials in the Federal Civil Service and in private industry.

At the military pay rates involved, a 3% differential is the minimum rate which allows pay increases of a meaningful dollar amount.

Within this framework of comparability with civilian longevity practice, military accession and retention considerations must be taken into account in the early years of service. Generally speaking the initial period of military service obligation occurs within the first four years of enlisted and the first six years of officer service. Determination of intragrade differentials in these segments of the pay table are discussed in the sections on each.

Using these criteria, the military pay tables under a salary system are constructed as follows:

(1) Enlisted Military Pay Table.

(a) Setting Basic Pay at the Core Longevity Steps.

Military pay at the core longevity steps of grades E-3 and E-7 are set at parity with the General Schedule grades GS-3, Step 2 and GS-7, Step 4, respectively. Military pay at the core longevity steps of the grades between E-3 and E-7 are set based on the intergrade differentials of basic pay which currently exist between these grades (See Tab D). Thus the military pay of E-4 at the core longevity step for that grade is 1.162 times \$7,339. The intergrade differentials in the current enlisted basic pay table are then applied to the rest of the grades up to E-7.

However, application of these differentials to the core basic pay for E-3 yields a military pay of \$14,394 for E-7. This is \$2,244 over the linked pay of \$12,150 for the E-7. To fit the enlisted payline to the two linkage points, this overage is proportionally prorated to the existing intergrade differentials between E-3 and E-7. The resultant enlisted basic payline and differentials are shown at Tab D.

Military pay rates for E-1 and E-2 are set by stepping down from the linked E-3 basic pay by the percentage differentials in the current basic pay table. Likewise, "core" longevity military pay levels for E-8, E-9 and Sergeants Major are set by stepping up from the linked E-7 basic pay by the intergrade differentials in the current pay table.

(b) Pay Grades E-1 through E-4 with less than 4 Years' Service.

Accession and retention considerations predominate through the first four years of enlisted service. Promotions occur rapidly up to grade E-4. Thus, the primary pay motivating factor is provided through the pay increases which result from promotion rather than from longevity in a grade. In FY 1976, most of the first term enlistments were for a period of three or four years (40% three year enlistments and 54% four year enlistments). Therefore, in constructing the military pay table for this group it is necessary that: (1) entry level pay be competitive with civilian employment so that, in conjunction with the

enlistment bonus program, the military services can meet their accession requirements; and (2) there be significant pay increases at the three and four years of service points to provide an incentive to extensions and reenlistments to continue in military service.

(c) Entry Level Pay.

The competitive criteria is met by establishing E-3 pay based on linkage to GS-3. Pay for E-1 and E-2 is then derived by stepping down from the linked E-3 basic pay by the basic pay percentage differentials in the current pay system. This produces a monthly military pay of \$528 (annual rate of \$6,335 per year) for the E-1.

Without conscription the military must compete with the private sector in the recruiting and retention of full-time permanent personnel. E-1 pay must be competitive with the pay of entry level workers in the private sector. Therefore, the E-1 military pay set by this methodology described was assessed against civilian pay practices for entry pay and pay of similar age groups.

For purposes of comparison a study of entry level pay practices in the civilian sector was made.¹ The study found very few parallels in the private sector to the indoctrination training, as distinguished from training in a specific skill or trade, which is characteristic of military basic training.

¹ Entry Level Compensation Practices In The Civilian Sector, Kramer Associates, Inc., August 6, 1976.

There are a few government sponsored programs, such as the Job Corps and programs under the Manpower Development and Training Act (MDTA), which may bear some similarity to recruit training. However, many of these programs are aimed at disadvantaged and unemployable youths, many of whom cannot qualify for enlistment in the military. In addition, many of these programs are not permanent employment opportunities, but are intended only to improve the ability to later find and hold a job. Once the period of training is over, the enrollee is not employed, but then begins to seek employment. Pay scales in such programs are not therefore of great usefulness for comparisons purposes. The Kramer study reported that 1975 first-level earnings of jobs comparable to enlisted men's office-type specialties were \$549 per month, and the average salary of jobs comparable to enlisted men's specialties other than office (for example, guards and watchmen, laborers, truck drivers) were \$637 per month. The first, or entry-level, is the lowest pay grade in an occupation, one into which an inexperienced worker is hired. Earnings of first stage apprentices in typical labor union apprenticeship programs range from \$471 per month for electricians to \$887 per month for newspaper compositors, with the salaries generally falling in the \$500-600 range.

Weekly earnings of age groups in the civilian sector from which the military normally recruit enlisted personnel

range from \$104 for 17 years olds to \$156 for 20 years olds (Tab E). The \$122 weekly equivalent for the E-1 (\$6,335 divided by 52 weeks) is about the same as current weekly earnings of 18 year old males in the private sector.

On balance, therefore, the military pay rate for the E-1 (\$528 per month/\$122 per week), in conjunction with the system of bonuses for critical specialties, should result in pay levels that are competitive with those paid in the private sector.

d. Retention Considerations.

A significant financial incentive is required for retention purposes at the three and four year service points. In FY 76, about 40% of first term enlistments were for a period of three years and about 54% were for four years. The primary first term reenlistment pool are personnel in grades E-4 and E-5. On average these grades will have been achieved by the end of three and four year first enlistments.¹ In addition, about 85% of military personnel eligible to reenlist after their first term are E-4 or F-5.²

¹ The length of service at promotion to F-4 in the FY 77 budget submission is: Army, 1.92 years; Navy, 2 years; Air Force, 2.5 years; Marine Corps, 2.83 years.

² In FY 75 and FY 76, 62% were E-4, 23% F-5.

For these reasons a three year longevity step is provided with large increases for average promotion to E-4 and early promotion to E-5. The four year longevity step provides a large increase at the normal or payline promotion point to E-5. A larger than normal longevity increase is also provided at the four year longevity step in the E-4 grade. An increase of 50% of that which would result from promotion to E-5 was selected.

(2) Officer Military Pay Table

Military pay at the core longevity steps of grades 0-2 and 0-5 are set at parity with the General Schedule grades GS-9, Step 2 and GS-14, Step 3, respectively. Military pay at the core longevity steps of the grades between 0-2 and 0-5 are set based on the intergrade differentials of basic pay which currently exist between these grades (See Tab D).

However, application of these differentials to the core military pay for 0-2 (\$13,931) yields a military pay of \$29,185 for 0-5. This is \$534 over the linked military pay of \$28,651 for 0-5. To fit the officer payline to the two linkage points, this overage is proportionally prorated to the existing intergrade differentials between 0-2 and 0-5. The resultant officer military payline and differentials are shown at Tab D.

The "core" longevity basic pay rates for 0-6 through Chief of Staff are set by stepping up from the linked 0-5 core step by the intergrade differentials in the current basic pay table. This yielded a military pay of \$65,084 for 0-10 and \$71,788 for the Chief of Staff. These military pays are higher than the Executive Level I salary of the Secretary of

Defense. Since it may be considered unrealistic to set Military Pay above that level, a ceiling of \$63,000 is placed on the O-10 and Chief of Staff military pays.

The basic rate for O-1 is set by stepping down from the linked O-2 basic pay by the basic pay percentage differential in the current pay table.

As was described for the enlisted payline, accession and retention considerations are of primary importance in shaping the military pay table through the first six years of commissioned service. Currently initial service and training obligations for officers range from three to six years. Therefore, for retention purposes significant pay increases should occur at these longevity steps. Promotions from O-1 to O-2 and O-3 are virtually automatic during this time period. Thus, intragrade differentials (longevity increases) are relatively much more important during the first six years than for the remainder of the pay table. Therefore, longevity increases between normal promotion points for the O-3 under six year population are increased from the normal 3% of core step basic pay to 50% of the amount that would result from promotion. This affects the longevity step increases at the three year, four year, and six year points. Entry level salaries for jobs in the private sector comparable to officer grades typically range from \$905 to \$1,076 per month. The influence of a year of experience seems relatively uniform, the second level pay averaging about 10% above the first. While there is no firm rule that a worker will rise to the second level after

one year, it does appear to be a common interval.¹ The proposed officer entry level military pay is \$922 per month. This is within the range of salary averages cited by Kramer.

(3) Warrant Officer Military Pay Table

The basic pay relationship that currently exists between Warrant Officer grades and commissioned officer grades is used to construct the Warrant Officer military pay table. Basic pay is identical between Warrant Officer and commissioned officer grades at the following points: W-1/10 years and O-1/3 years; W-2/6 years and O-2/2 years; W-3/18 years and O-3/4 years; W-4/14 years and O-4/6 years. This relationship is retained in the Warrant Officer military pay table for these longevity steps. Military pay for the other longevity steps in the Warrant Officer basic pay table is set using the 3% intragrade differentials.

Military pay tables based on the methodology and criteria described are shown at Tab F.

1

Kramer op cit p 16. Kramer emphasizes that the duties of most, if not all, officers may have little resemblance to the private sector occupations used for comparison. Kramer's comparisons were based on qualifications (Baccalaureate degree, no experience in intended speciality) of the entrants into the jobs used, rather than on job content.

MILITARY PAYLINE CORE LONGEVITY STEPS

<u>Grade</u>	<u>Longevity Step on Payline</u>
O-1	<1
O-2	2
O-3	4
O-4	10
O-5	16
O-6	22
O-7	28
O-8	30
O-9	30
O-10	30
E-1	< 1
E-2	< 1
E-3	1
E-4	3
E-5	4
E-6	8
E-7	14
E-8	18
E-9	22

STEP AT PROMOTION TO GS-7
DEPARTMENT OF DEFENSE
TECHNICAL/CLERICAL
(1975)

<u>Step</u>	<u>Number</u>	<u>Percentage</u>
1	1,836	26.7
2	451	6.6
3	882	12.8
4	622	9.1
5	923	13.4
6	547	8.0
7	568	8.3
8	737	10.7
9	127	1.8
<u>10</u>	<u>178</u>	<u>2.6</u>
Total	6,871	100.0
Average Step	4.2	

Tab C

Officer and Enlisted Military Pay Pay Lines

Pay Grade	Length of Service	Current Basic Pay	Intergrade Differentials \$	Intergrade Differentials %	Proposed Military Pay	Intergrade Differentials \$	Intergrade Differentials %	Current RMC
C/S	-	\$52,866	\$4,954	10.3	\$63,000	\$ -	-	\$62,106
O-10	30	47,912	5,637	13.3	63,000	5,556	9.7	56,822
O-9	30	42,275	4,162	10.9	57,444	5,646	10.9	50,759
O-8	30	38,113	4,971	15.0	51,798	6,756	15.0	46,090
O-7	28	33,142	6,293	23.4	45,042	8,541	23.4	40,569
O-6	22	26,849	5,778	27.4	36,501	7,850	27.4	33,024
O-5	16	<u>21,071</u>	4,306	25.7	<u>28,651</u>	5,753	25.1	<u>26,359</u>
O-4	10	16,765	2,801	20.1	22,898	3,752	19.6	21,394
O-3	4	13,964	3,906	38.8	19,146	5,215	37.4	18,011
O-2	2	<u>10,058</u>	2,066	25.9	<u>13,931</u>	2,866	25.9	<u>13,538</u>
O-1	1	7,992	-	-	11,065	-	-	10,893
M/S	-	\$19,134	\$4,784	33.3	\$23,626	\$5,902	33.3	\$23,729
E-9	22	14,350	2,690	23.1	17,724	3,326	23.1	18,605
E-8	18	11,660	1,818	18.5	14,398	2,248	18.5	15,532
E-7	14	<u>9,842</u>	1,969	25.0	<u>12,150</u>	1,959	19.2	<u>13,499</u>
E-6	8	7,873	1,407	21.8	10,191	1,407	16.0	11,369
E-5	4	6,466	634	10.9	8,784	635	7.8	9,698
E-4	3	<u>5,832</u>	814	16.2	8,149	810	11.0	8,624
E-3	1	<u>5,018</u>	187	3.9	<u>7,339</u>	275	3.9	<u>7,511</u>
E-2	1	4,831	497	11.5	7,064	729	11.5	7,137
E-1	1	4,334	-	-	6,335	-	-	6,557

¹ Average assume all cash RMC.

MEDIAN WEEKLY EARNINGS¹
FULL-TIME WAGE AND SALARY WORKERS

<u>Age</u>	<u>Median Earnings</u>	
	<u>Males</u>	<u>All</u>
17	104	102
18	124	116
19	139	128
20	156	133

¹ The median earnings as reported in the Department of Labor May 1975 Survey was updated by the average weekly earnings increase of workers in the private non-farm economy between May 1975 and July 1976.

QUADRENNIAL REVIEW OF MILITARY COMPENSATION

CONVERSION TO SALARY SYSTEM OF MILITARY PAY

ASSUMED IMPLEMENTATION PLAN

Implementation Assumptions

1. A new Military Pay for all enlisted, warrant officer and officer grades is set at parity with Federal Civil Service pay based on whole grade work level linkages with the General Schedule:
 - E-3 to GS-3
 - E-7 to GS-7
 - O-2 to GS-9
 - O-5 to GS-14 (preferred O-6 linkage not yet available)
2. BAQ and BAS are eliminated.
3. Relief is obtained from the Executive Level V limitation.
4. The new Military Pay becomes effective 1 October 1978. The current pay and allowances system is retained for about five years until the last active duty member converts to the new military pay.
5. The new retirement system in the RMA proposal 94-4 is implemented in FY 1979, and factored on to the new Military Pay system to provide the RMA benefit level, at its current estimated cost to DoD.
6. The major benefit package (leave, holidays, medical absence, insurance, modernized retirement, and health care)

is retained at present levels until benefit package adjustments can be made on a General Schedule package linked to the private sector (about 2 years).

7. All bonuses and special pays are unlinked from basic pay and set at specified dollar levels.

a. Officer bonuses and special pays are set such that the cost to DoD is reduced 10%.

b. Because of reductions in enlisted cash pay levels, there will be a substantial increase in enlistment and reenlistment bonuses. Estimating the effects of enlisted payline shifts on bonuses or special and incentive pays are highly judgmental because there isn't an empirical data base that would support such an estimating relationship. Roughly 1/2 the enlisted force is in blue collar or pure military skills and it is those skills that would probably be underpaid if a pure General Schedule linkage is used. This suggests a probably theoretical tradeoff of 2:1 in current spendable dollars vs bonus dollars. That is, for every dollar decrease in current member disposable income, we would probably have to increase the amount spent on bonuses or special and incentive pays by 50 cents. This is a very theoretical efficiency estimate because bonus setting methodologies are not exact. But it provides a reasonable order of magnitude estimate of the effect of varying the general payline.

8. The following special pays adjustments are made:

a. Leprosy Pay and Glider Pay are eliminated.

b. The present Certain Places Pay is replaced with a more meaningful Remote Tour Pay authorized for repeated assignments to locations with tour lengths of 12 months or less, where no dependents are authorized for any military member and where there are both isolation and environmental

extremes, reducing costs to DoD by 90%.

c. The present Sea Pay is replaced with a more meaningful special pay to recognize cumulative service on sea duty at no increased cost to DoD.

d. Diving Duty pay is restructured to provide greater incentives for saturation divers and master divers. Divers are no longer entitled to SDA Pay.

e. Optometrist and Veterinarian pays are not renewed.

9. Family Separation Allowance I is shifted from the present BAQ base to a new basis which will result in the entitlement, at the current bachelor rate (representing average CONUS military off-post rental costs) by pay grade, paid to all members (with dependents) separated.

10. FSA II is paid to all members (with dependents) separated.

11. The Dislocation Allowance is shifted from the present BAQ basis to a new basis which will result in entitlement at current single and married rates, by pay grade, for all on PCS except those going from sea or extended field duty to sea or extended field duty, and those on accession or separation moves.

12. Overseas Station Housing Allowances are shifted from a family BAQ rate base to a base of average CONUS military off post rental costs, by grade, which reduces HA costs 40%.

13. The present COLA base is retained. The rate is 95% of the present rate for all accompanied members, and a COLA at 60% of present rates is paid to all unaccompanied members, with these COLAs paid to all members stationed at the locations at which COLA is now paid. Estimated at 2.1 times the current program costs.

14. A Variable Housing Allowance is enacted and implemented in FY 78 which pays a differential VHA at locations when average military off-post

housing costs by grade are higher than the overall CONUS average civilian housing costs.

15. Separation pays in the RMA proposal 94-4 are implemented in FY 78 at the estimated costs to DoD contained in that proposal.

16. PCS travel entitlements are extended to members in all grades.

17. Pay scales for members of reserve components on duty for training (reserve pay appropriations) are set on a basis independent of the new Military Pay, at no change in DoD cost. Annual increases are matched to increases in the new Military Pay increases.

18. Cadet and Midshipman pay is set on an independent scale at the costs estimated in the DoD Legislative Proposal 95-19. Annual increases are matched to increases in the new Military Pay.

19. DoD FICA contributions increase based on the new taxable Military Pay scale.

20. All other pays denominated in basic pay (such as Reenlistment Bonuses, Separation Pay, etc.) are established on a new basis not linked to Military pay.

21. Military Pay increases occur annually at the rates used in the FY 1977 President's Budget. (FY 19/8=6.5%, 79=6.0%, 80=5.75%, 81=5.25%, 82=4.75%).

22. Annual increases in the pay and allowances system occur at the same rates. No increases are applied after the 1 October 1979 pay raise.

23. Government quarters are rented initially at local appraised value, thereafter at rates necessary to keep occupancy up, approximated by QRMC DoD cost recovery valuations.

24. Mandatory occupants of government quarters are charged rent at 90% of full rental rate, as a visible protection

against manipulation of "mandatory" requirements so as to force full occupancy and maximize post rent income levels.

25. No quarters charge is made to members on sea duty or extended field duty.

26. Members assigned to bachelor quarters who are ordered TDY retain their assigned quarters and continue to pay rent at the prescribed rate. Quarters charge is made to members in bachelor quarters on TDY only when full per diem rates are paid.

27. Members assigned to bachelor quarters who are hospitalized retain their assigned quarters and continue to pay rent at the prescribed rate. No quarters charge is made to members hospitalized.

28. Members assigned to bachelor quarters who are required to vacate them for TDY or hospitalization are entitled to a DLA.

29. Cadets and midshipmen at the service academies are on mandatory quarters occupancy. No quarters rent is charged because Cadet Pay is set to reflect receipt of quarters in kind.

30. The current level of bachelor quarters occupants E-1 through E-4 and O-1 through O-2 are required to occupy government quarters for military training and readiness purposes. Ten percent of the current level of all other

members currently in government bachelor and family quarters are required to occupy them for military training and readiness purposes. Balance of current quarters occupancy levels are maintained on a voluntary basis.

31. Officers on sea duty subsist in closed messes. Enlisted members on sea duty, members on field duty, and those required to subsist in a government mess for operational or duty status reasons, or when no alternative source of meals is available, are charged the government raw food cost (currently \$2.73 for a full day's ration).

32. Members subsisting in a government mess at their own choice--when a real alternative is available to them--are charged at the BLS average food cost (currently \$3.71 for a full day's ration) to distinguish portion of food delivery system for this service as distinct from contingency requirements.

33. Cadets and midshipmen at the service academies are on mandatory subsistence in kind. No subsistence charge is made because Cadet Pay is set to reflect receipt of subsistence in kind.

34. The level of mandatory government mess usage is represented by the current level of enlisted members on sea duty, the current level of enlisted members not authorized BAS, less the "voluntary absentee" rates plus 25% of the level of mandatory officer quarters occupancy.

35. Ten percent of the force uses government mess at own option.

Conversion Assumptions

36. All non-prior service and broken service accessions beginning October 1, 1977 are paid the new Military Pay.

37. Officers and warrant officers in a saved pay status from previous warrant or enlisted duty who convert to the new Military Pay are entitled to saved pay based on equivalent warrant or enlisted new Military Pay at the time of conversion.

38. Retired members on active duty retain the previous basis of retired pay, CPI adjusted forward to date of reentry into retired status.

39. All reenlistments and all reserve officer integrations into the regular components beginning 1 October 1978 are paid the new Military Pay.

40. All members promoted beginning 1 October 1978 are paid at the new Military Pay rate.

41. All other personnel may choose to convert to the new Military Pay.

42. In the pay and allowances system reallocate 25% of pay raises in FY 1977 and 1978. No further bachelor rebate.

Supplementary Assumptions

43. All bachelors on sea duty choose to convert immediately.

44. All bachelors in quarters choose to convert by end of FY 1978.

45. Half of those in family quarters convert in FY 1980, remainder in FY 1981.

46. Rental rates and subsistence charge rates all increase at same rate as Military Pay increases.

47. VHA and SHA rates increase at same rate as Military Pay increases.

SYSTEM COSTS

GENERAL SCHEDULE WHOLE GRADE LINKAGE STANDARD

The cash pay and RMC aspects of the salary system can be readily compared with the current system. To assess total compensation system costs in relation to the current pays and allowances system an implementation plan was developed, based on decisions where they have been taken and QRMC recommendations where they have not. The implementation plan is shown at Tab G. Some allowance elements cannot be readily costed because of lack of data. In these cases a reasonable, but arbitrary, estimate is used. System cost details are shown so that the relative costs and cost tradeoffs can be assessed.

The cost estimates in Tab H are based on the President's FY 77 budget submission and therefore contain October 1975 military pay scales. Previously published QRMC Staff Research Papers showing total military compensation displays were based on FY 76 budget costs and October 1974 military pay scales. In addition, the Research Papers on military fringe benefit valuation also used FY 76 budget data. The FY 76 budget data was used because it was the most current at the time the papers were written. This Staff Research Paper and the others contained in Volume X, which deal with structural changes to the military compensation system, were begun subsequent to the military pay raises which occurred in October 1975. Since it was necessary to use the most current pay scales in examining changes to the military compensation system, the October 1975 pay scales were used in these Staff Research Papers.

COMPARATIVE SYSTEM COSTS

(\$ Million)	<u>Current</u>	<u>Salary</u> (Tentative Costs)
<u>I. Regular Military Compensation</u>		
Basic Pay	<u>16,054.4</u>	<u>21,769.2</u>
Cash BAQ	<u>3,285.1</u>	<u>-</u>
Cash BAS	<u>1,844.4</u>	<u>-</u>
(Tax Advantage)	<u>(1,270.4)</u>	<u>-</u>
Subtotal	<u>21,183.9</u>	<u>21,769.2</u>
Less:		
Collections for quarters	<u>1,531.6</u>	<u>1,375.4</u>
Collections for subsistence	<u>729.2</u>	<u>1,061.0</u>
Add:		
Adjustments to collections	<u>-0-</u>	<u>506.3</u>
Mandatory Qts Occupancy	<u>-0-</u>	<u>152.4</u>
Short tour areas	<u>-0-</u>	<u>8.0</u>
Afloat	<u>-0-</u>	<u>47.8</u>
EM not eating in mess	<u>-0-</u>	<u>298.1</u>
Cash before taxes	<u>18,923.1</u>	<u>19,839.1</u>
Less:	<u>2,393.2</u>	<u>3,834.4</u>
Federal Income Tax	<u>1,491.0</u>	<u>2,674.7</u>
FICA	<u>902.2</u>	<u>1,159.7</u>
Cash after taxes	<u>16,564.9</u>	<u>16,004.7</u>
DOD FICA Contribution	<u>902.2</u>	<u>1,159.7</u>
Total DOD Budget Costs	<u>19,825.3</u>	<u>20,998.8</u>
DOD RMC Costs/Savings	<u>-</u>	<u>1,173.5</u>
Total Government Costs	<u>-</u>	<u>-10.2</u>

COMPARATIVE SYSTEM COSTS

	<u>Current</u>	<u>Salary</u> (Tentative Costs)
II. <u>Special Pays, Total</u>	<u>733.3</u>	<u>1,266.9</u>
(a) Aviation Career Incentive Pay	<u>192.6</u>	<u>173.4</u>
(b) Continuation Pay, Nuclear Officer	<u>1.7</u>	<u>1.6</u>
(c) Physicians and Dentists Pay	<u>47.0</u>	<u>42.3</u>
(d) Veterinarian and Optometrist Pay	<u>1.5</u>	<u>-0-</u>
(e) Medical Officers Var. Inc. Pay	<u>66.4</u>	<u>59.8</u>
(f) Continuation Pay, Phys. & Dent.	<u>17.8</u>	<u>16.1</u>
(g) Responsibility Pay	<u>-0-</u>	<u>-0-</u>
(h) Sea Pay	<u>28.4</u>	<u>28.4</u>
(i) Certain Places Pay	<u>32.3</u>	<u>3.2</u>
(j) Diving Duty Pay	<u>3.6</u>	<u>7.0</u>
(k) Enlistment Bonus	<u>28.5</u>	<u>42.2</u>
(l) Reenlistment Bonus (including Nuclear Reenlistment bonus)	<u>275.0</u>	<u>856.4</u>
(m) Proficiency Pay	<u>38.5</u>	<u>36.5</u>
III. <u>Incentive Pay, Hazardous Duty, Total</u>	<u>79.5</u>	<u>79.5</u>
(a) Flying Duty Pay, Total	<u>30.6</u>	<u>30.6</u>
Crew Member, Enlisted	<u>25.4</u>	<u>25.4</u>
Non-crew Member	<u>5.2</u>	<u>5.2</u>
(b) Submarine Duty Pay	<u>25.4</u>	<u>25.4</u>
(c) Parachute Jumping Pay	<u>21.1</u>	<u>21.1</u>
(a) Demolition Pay	<u>2.4</u>	<u>2.4</u>

COMPARATIVE SYSTEM COSTS

	<u>Current</u>	<u>Salary</u> (Tentative Costs)
IV. <u>Retirement Pay Cost Accrual</u>	<u>4,570.0</u>	<u>3,980.4</u>
V. <u>Health Care(patient care) System</u>	<u>3,889.9</u>	<u>3,889.9</u>
VI. <u>Reimbursements</u>	<u>1,901.1</u>	<u>2,717.2</u>
Station Allowances Overseas, Total	<u>194.9</u>	<u>237.6</u>
(1) Cost of Living	<u>72.2</u>	<u>151.7</u>
(2) Housing	<u>90.3</u>	<u>63.2</u>
(3) Temporary Lodging	<u>32.4</u>	<u>22.7</u>
Family Separation Allowance, Total	<u>37.4</u>	<u>40.4</u>
(1) On PCS, no government qtrs.	<u>5.1</u>	<u>8.3</u>
(2) On PCS, dependents not author.	<u>17.2</u>	<u>17.2</u>
(3) Afloat	<u>8.6</u>	<u>8.6</u>
(4) On TDY	<u>6.3</u>	<u>6.3</u>
PCS Travel Costs	<u>1,669.0</u>	<u>1,879.1</u>
Variable Housing Allowance	<u>-0-</u>	<u>560.1</u>
VII. <u>Terminal Leave Pay</u>	<u>285.7</u>	<u>256.2</u>
VIII. <u>Severance Pays, Total</u> (includes Lump Sum Readjustment pay, Disability Severance Pay, and Non-Promotion Severance Pay)	<u>65.8</u>	<u>86.9</u>
IX. <u>Reserve Basic Pays</u>	<u>1,335.2</u>	<u>1,335.2</u>
X. <u>Cadet and Midshipman Pay</u>	<u>65.9</u>	<u>61.1</u>
<u>TOTAL SYSTEM COSTS (Recurring)</u>	<u>32,751.7</u>	<u>34,672.5</u>
<u>TOTAL SYSTEM COSTS (Conversion)</u>	<u>-</u>	<u>1,210.6</u>

THE TAXABLE PAY AND ALLOWANCES SYSTEM

**A Staff Research Paper
Prepared For
The Third Quadrennial Review
Of Military Compensation**

17 January 1977

30 Nov 76
Rev 17 Jan 77

QUADRENNIAL REVIEW OF MILITARY COMPENSATION

STAFF RESEARCH PAPER

MODERNIZED MILITARY TAXABLE PAYS AND ALLOWANCE SYSTEM

I. Purpose: To describe a system to implement a modernized taxable pays and allowances system, including pay-setting methods, candidate paylines and pay tables, and to provide system cost comparisons and transition cost estimates.

II. Introduction:

The 1975 Quadrennial Review of Military Compensation has examined a modernized taxable pay and allowances system for military personnel, providing for:

- a. A single basic pay scale designed as the principal reward for work and duty;
- b. Taxable BAQ, set to meet the housing costs experienced by military personnel with and without dependents, when not provided quarters suitable for attained rank;
- c. Taxable BAS set to meet the food costs experienced by military personnel when not provided rations;
- d. Housing or BAQ for members on sea duty and extended field duty;
- e. A system of bonuses and special and incentive pays to meet personnel requirements in specific skills.

A key feature of the system is that military pay levels are set to a pay standard which provides competitive levels of pay in a comparability based system. The standard will be based on work level linkages with the Federal Civil Service. A number of standards are usable, including linkage to:

- The General Schedule at the nearest whole grade to the work level of the selected military grade.
- The General Schedule at the intergrade work level point equal to the work level of the selected military grade.
- For the enlisted force the mix of the nearest whole grades in the GS and the Wage Grade (WG) systems equal to the mix of white and blue collar type jobs.
- The intergrade work levels equal to the selected grades but using the GS/WG mix for the enlisted force.

The first alternative is used for illustrative purposes in this paper for consistency with the QRM C recommendations in the non-taxable modernized pay and allowances system.¹

¹ Alternative work level linkage standards may be required to make the system effective in meeting manpower requirements. QRM C Staff consideration of this question is provided in the Staff Research Paper "Modernized Military Pay and Allowances System", 12 Nov 1976 (Rev. 15 Jan 1977) pp 13-16.

The QRMC considered a number of possible linkage points for setting military paylines. The preference was for two points for each payline: E-3 and E-7 for the enlisted payline and O-2 and O-6 for the officer payline.

The current military compensation system is not anchored to any such standard although many may have thought so because of the matching pay raise procedures that have existed since 1967. A pay and allowances system is especially well suited to the way a military force functions. In many situations the force must be quartered and subsisted at, or in close proximity to, their duties. Allowances must be provided at adequate levels when such is not the case. That means the allowances must be set to meet costs actually experienced by military personnel.

Since a pay and allowance system has different objectives than a salary system, a means is required to select pay equivalencies which recognize work or service equivalencies without distorting the purposes of a pay and allowances system. The Regular Military Compensation (RMC) concept was used for this purpose from 1967 to 1974 to provide military pay increases which matched civilian salary increases. RMC was treated as the military pay and allowances equivalent of civilian salary. Because RMC included a non-cash tax advantage, and because this system put all of the pay increase into the element of RMC for work and duty performed -- basic pay -- it distorted the resulting RMC and inflated retired pay.

In 1974 RMC was abandoned as the pay increase base and replaced with a system of percentage increases in its cash components only. A definition of RMC was retained in the law, however, for the purposes of making pay comparisons with civilian salaries. When RMC was the basis for calculating pay raises, the allowance levels were quickly distorted. Under the equal percentage method, basic pay increases kept pace with civilian pay increases. But the allowances increased with civilian pay increases, and this continued to distort them from food and shelter cost changes. RMC could be set equal to a salary standard with the allowances adjusted based on food and housing costs. But basic pay would then become a residual amount, distorted from its intent.

Since these methods are inadequate for pay setting purposes, the QRMC Staff has developed a pay setting technique to meet the following objectives:

- a. Set pay on the basis of equal pay for approximately equal work.
- b. Use civilian salary as the pay standard.
- c. Recognize civilian basic salary as pay for work or service.
- d. Recognize military basic pay as pay for service or duty.
- e. Set the two basic military allowances on the basis of their objectives in a pay and allowance system.

Military Pay Standard. Since the quarters and subsistence allowances are set on different criteria, only the basic pay portion of the pay and allowances system can be linked to a standard derived from

linked grade salaries. This is accomplished by deducting from civilian basic salary the expense elements for food and shelter. Since Civil Service basic salary is intended to be comparable to private sector salaries, the food and shelter offsets can be based on appropriate national data. National data is readily available while civil service data is not. This net salary standard can act as the parity standard for military basic pay.

Pay Adjustments. Annual changes in the civilian offsets from civilian salary used in determining the Net Salary Standard will differ from the annual salary increases received by Civil Service employees. This could result in military Basic Pay adjustments which are greater than or less than Civil Service salary increases. It is conceivable that even the need for a decrease in basic pay would be indicated. To prevent this situation and to create stability and simplicity to the pay adjustment process, adjustments to the military pay elements will be made as follows:

- a. Annual military basic pay increases will be the same as the Civil Service increase.
- b. Annual adjustments will be made to the BAQ and BAS rates using annual changes in the BLS indices for housing and food.
- c. The distortions from the Net Salary Standard which will result from these annual pay adjustment mechanisms will be corrected at each quadrennial review of military compensation.

Concept Summary. At each linkage grade, the components of the military equivalent of civilian salary can be calculated as follows:

a. Basic pay will be set at parity with a net salary standard determined from civilian basic salary less average civilian shelter and food costs.

b. BAQ and BAS will be set on the basis of appropriate cost criteria. Military personnel experience housing and food expenses that vary substantially from civilian averages. (See Tab A.) Further, the military quarters element distinguishes family status. Therefore, the basis for BAQ and BAS rates is not the same as the basis for shelter and food expense offsets to civilian basic salary for determining the "net salary standard."

c. The result of this pay setting methodology will be a military RMC which will be approximately the same as, but not identical to, civilian basic salary. Its allowance elements will adjust to the expenses for which they are intended. Its pay element will be set based on the civilian basic salary standard and thus respond only to the movements of pay for work in the economy. It will no longer have the "invisible" and individually variable element of "tax advantage". The concept is illustrated at Tab B.

III. Determining Housing and Food Offsets to Civilian Salary:

a. Civilian Housing Expense. The candidate sources for this data are: the Annual Housing Survey, published by the Bureau of the Census; the General Schedule Employee Housing Cost Survey, taken by the Department of State in the Washington, D. C. area; and a calculation from the Annual Housing Survey and the Bureau of Census Consumer Income Report. By

mid 1977 the first source can be used to relate housing expenditure to salary. In the interim the third source is used. See Tab C for a detailed discussion.

b. Civilian Food Cost. The candidate sources for this data are: a Consumer Expenditure Survey, a one-time BLS diary of actual consumption expenditures; the Department of Agriculture Family Food Plan, which is estimates of the cost of three food plans; and BLS Family Budgets, which are 1969 cost estimates of three standards of living adjusted by the CPI since then. The first and last of these sources were used together to provide a reasonable and stable basis for civilian food costs because: (1) the data are updated annually by BLS; (2) they cover food at home and away from home; and (3) they realistically show food expenditures increasing with salary. The drawbacks of this choice are that actual food expenditures are not reflected and the annual update is based on CPI rather than direct pricing. See Tab D for detailed discussion.

IV. Setting BAQ and BAS Rates

a. BAQ. The annual Naval Facilities Command (NAVFAC) survey covers rental and ownership costs by pay grade for married personnel. The national averages of expenditures on housing actually experienced by members in each grade will be used to set BAQ. Bachelor BAQ should be set in the same manner but the NAVFAC survey doesn't include bachelor data yet. Until data on actual expenditures is available, the current relationship

of with to without dependents BAQ has been used for illustrative purposes. See Tab E for a more detailed discussion.

b. BAS. A single BAS rate will be established for all military personnel instead of varying the rate by salary as was done on the civilian food cost offset. The government's obligation to subsist its members does not vary with grade. For reasons of equity the officer rate will be set equal to the enlisted rate. The source chosen was the same as that for civilians and the average or intermediate value was used to set the BAS rate. See Tab E for a more detailed discussion.

V. Tables of Military Basic Pay: The basic pay tables are built around the linkage grades. Intergrade relationships from the current basic pay table have been used to establish the enlisted and officer paylines because those relationships have been developed to meet force management needs. Intragrade differentials from the current basic pay table could not be used because they were irregular and varied widely. Regularized intragrade progression rates are developed from civilian practices to provide meaningful increases to recognize performance improvements that on the average result from additional time in service. Steps were added at the one year point, to match private sector practices for entering employees, and at the 24, 28, 30 and 32 year points to smooth out departure patterns in the senior grades by serving as an inducement to remain on active duty

consistent with personnel management objectives. Finally, the three special pay grades, 0-1E, 0-2E, and 0-3E, for officers who have over four years of enlisted service were eliminated at no significant increase in cost. The 1971 All Volunteer Force pay raises have eliminated the pay inversions which made that separate pay table desirable. For a fuller discussion, see Tab F.

VI. Implementation. The military equivalent salary which results from the methodology is shown at Tabs F-2 through F-5. The linkage grades used are E-3, E-7, 0-2 and 0-5. The preferred 0-6 linkage is not used because 0-6 linkage data was not developed in staff research on linkage. The basic pay tables are at Tab F-9, BAQ and BAS at Tab E. To provide a comprehensive and integrated compensation plan based on the modernized pays and allowances system, a detailed list of 47 related compensation elements and transition assumptions is provided at Tab G. The major features in that plan are:

- The new system becomes effective October 1978.
- Current basic pay and allowance rates will remain in effect on an optional basis for an additional period of about 5 years until all active duty members shift to the new tables without loss of basic pay. No pay raises to the old rates after October 1980.
- The DoD proposal for military retirement modernization will be adopted
- Linkages are to the General Schedule whole grade nearest the work level of the military linkage grade. The enlisted linkage is to the GS only not a mix of blue and white collar.
- Bonuses and special pays will be unlinked from basic pay and set at specified levels.

* Enlisted bonuses and special pays in critical specialties will be used more extensively because blue collar occupations were excluded from the linkage. Thus the general basic payline is lower but more specialties will require competitive bonuses to meet manning requirements.

* PCS travel entitlements are extended to junior enlisted members.

* The "fair market" rental system (FMR) for government housing is adopted.

* Variable Housing Allowance (VHA) for the United States is adopted.

Comparative systems costs are:

	Comparative Costs ¹ (\$ Million)	
	Current System	Taxable Modernized System
Basic Pay	\$16,054.4	\$14,827.6
BAQ	3,285.1	5,110.7
QIK	1,531.6	1,167.2
BAS	1,844.4	2,822.5
SIK	729.2	762.9
(Tax Adv)	<u>(1,270.4)</u>	<u>-</u>
RMC ²	<u>22,454.3</u>	<u>22,760.8</u>
DOD Personnel Costs of RMC items ³	<u>18,923.1</u>	<u>20,830.7</u>
Other Elements ⁴	<u>13,828.6</u>	<u>13,189.3</u>
Recurring DOD System Costs	\$32,751.7	<u>\$34,020.0</u>
Transition Costs	-	\$311.4

Detailed cost comparisons are shown in Tab H to permit evaluation of separate elements in the context of the total system.

¹ Cost estimates are based on the President's FY 77 budget submission.

² Sum of Basic Pay, BAQ, BAS, and Tax Advantage in the current system.

³ RMC less QIK, SIK, and less Tax Advantage in the current system.

⁴ Includes Retirement pay accrual of \$4,570.0 million under the current system and \$3,626.9 million under the proposed system.

V. Summary:

At Tab F-8, current basic pay levels on the payline are compared to the basic pay levels which are produced under the taxable pay and allowances system by determining appropriate basic pay levels from the General Schedule linkage grade and then fitting the basic payline to conform to the shape of the current military basic pay intergrade differentials.

The differences in the military pay rates produced in this manner as compared to current military pay rates are:

- a. Basic pay levels under the taxable pay and allowances system are greater than current basic pay levels on the officer basic payline.
- b. Basic pay levels on the enlisted basic payline are less than current basic pay levels.
- c. Although enlisted basic pay levels are less than current basic pay levels under the taxable pay and allowances system, military equivalent salary (which under the taxable pay and allowances system is composed of basic pay, BAQ, and BAS) is greater than current military equivalent salary (RMC under the present system) for persons in many of the enlisted pay grade and longevity steps. This results from the substantial increases in the BAQ rates under the taxable pay and allowances system.

The effect of these changes together with the probable increased use of bonuses will result in a higher proportion of the force being on "shadow" paylines above the common military pay base. The

acceptability of this in terms of performance motivation and retention will require management judgments not necessarily reducible to quantitative comparisons.¹

1

See QRM C Staff Research Paper "Modernized Military Pay and Allowances System", November 12, 1976 (Rev 15 Jan 77) pp 13-16.

**MONTHLY HOUSING COSTS AS A PERCENT OF FAMILY INCOME,
MARRIED MILITARY PERSONNEL AND CIVILIANS OF
COMPARABLE INCOME CLASSES, CY 1974¹**

Pay Grade	Military Personnel MHC as % of RMC	<u>Housing Costs as a Percent of Family Income</u>			
		<u>Rental Percent</u>		<u>Homeowner Percent</u>	
		<u>Civilian</u>	<u>Military</u>	<u>Civilian</u>	<u>Military</u>
06	18.7	9.6	14.5	11	17.8
05	21.4	9.6	16.3	11	19.7
04	23.1	11.3	17.0	13	21.4
03	23.6	11.3	16.8	14	22.5
02	23.9	11.3	17.2	14	23.2
01	26.7	15.3	19.3	16	23.2
					27.4
All Officers	22.9	11.3	16.8	13	21.9
E8	23.8	11.3	19.4	14	21.5
E7	24.9	15.3	19.4	16	22.6
E6	26.6	15.3	20.3	16	25.0
E5	26.8	15.3	19.7	18	26.1
E4	27.0	15.3	19.9	18	26.9
E3	28.7	19.5	21.2	20	27.6
All Enlisted	26.8	15.3	20.0	18	25.8
Total	25.9	15.3	19.3	18	24.9

¹ QRMC Staff Research Paper, Variable Housing Allowance, September 27, 1976, page 43.

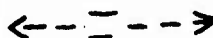
DETERMINATION OF MILITARY PAY UNDER A
MODERNIZED TAXABLE PAYS AND ALLOWANCES SYSTEM

GENERAL SCHEDULE
SALARY

Housing Cost
Food Cost
Net Salary Standard

MILITARY EQUIVALENT
SALARY

BAQ
BAS
Net Military Pay Equivalent



CIVILIAN HOUSING EXPENSES

Several measures of civilian housing expenses can be used:

(1) Annual Housing Survey: 1974. This annual report published by the Bureau of the Census and the Department of Housing and Urban Development includes data on housing expenditures, both rental and homeownership, as a function of family income. However, this data is not directly useful since the Net Salary Standard is to be based on General Schedule scales, not on the family income of civil servants. Although not published in their annual report, the Census/HUD survey does collect data on wage and salary income of heads of household. It is possible, therefore, to relate housing costs, ownership and rental, to the wage or salary of head of household. This data is available to the public on computer tape. It will be used as the basis for determining the housing offset to the civilian salary. The computer data containing the results of the 1975 survey will become available in the summer of 1977. These data could be obtained routinely from Census and indexed to the appropriate date for pay-setting purposes.

(2) General Schedule Employee Survey. The Department of State surveys rental and ownership costs of married male General Schedule employees in the Washington, D. C. area. This data is used by the State Department in establishing housing and cost of living

allowances for certain government civilians overseas. This index is not as useful for Net Salary Standard calculations as the Census/HUD survey since the State Department survey is taken only once every five years and only in Washington, D. C. It cannot be determined whether housing expenditure patterns for General Schedule employees in Washington, where housing costs are atypical, are applicable throughout the country.

(3) Calculation from Census/HUD Annual Housing Survey and Census Consumer Income Report. The Bureau of the Census Consumer Income Reports provide data on the portion of family income earned by heads of household. This information can be applied to Annual Housing Survey data to calculate housing expense as a function of salary. This method provides housing expense information sooner than is currently possible using Census/HUD Housing Survey data by salary of head of household directly. It would be less accurate than the direct data, and thus less desirable for pay-setting purposes. Nevertheless it can be used for working estimates to permit assessment of the proposed system in this paper. At Attachment 1 is a detailed explanation of this approximation technique used to estimate Civilian Housing Cost at each of the four linkage grades.

ESTIMATING AVERAGE CIVILIAN HOUSING EXPENSE

The Bureau of Census Consumer Income Report provides data on the proportion of income earned by heads of household. This data shows that on the average about 77% of family income in the United States is head of household wages or salaries.

The Census/HUD Annual Housing Survey provides data on housing expense as a function of family income. These data can be combined to estimate the family income of heads of household earning the salary of civilians at the linkage grades. For example, the civilian linkage salary for E-3 is \$7,339. The estimated average family income at this salary level is $\$7,339 \div .77$ or \$9,531. Once family income is known, housing costs can be estimated from Census data which relates housing costs to family income.

MEDIAN RENTAL EXPENDITURES AS A PERCENT OF INCOME ¹

<u>Income Class</u>	<u>Percent</u>
3,000-4,999	32.4
5,000-6,999	24.4
7,000-9,999	19.5
10,000-14,999	15.3
15,000-24,999	11.3
25,000 and over	9.6

¹

Rental expenditures include utilities payments.

SELECTED MEDIAN HOUSING COSTS AS A
PERCENT OF INCOME, HOMEOWNERS ¹

<u>Income Class</u>	<u>Percent</u>
2,000-3,999	45
4,000-5,999	31
6,000-7,999	24
8,000-9,999	20
10,000-12,499	18
12,500-14,999	16
15,000-19,999	14
20,000-24,999	13
25,000 and over	11

¹ Selected housing costs=mortgage payments + utilities + insurance + real estate taxes.

Regression analysis is made on each of the two data sets to derive housing cost estimating relationships (CER) to income levels. The two CER's are:

(1) Homeownership Costs=\$1,124 + .0785 (Family Income)

(2) Rental Costs=70.9 *(Family Income) .35

For estimated family income levels at each of the four linkage grades, estimates of rental and homeownership costs can be made. These separate estimates of rental and ownership costs are then combined according to the proportion of renters and homeowners at those family income levels to derive a single estimate of housing costs at each of the linkage grades. The following table shows the calculation of housing costs.

ESTIMATED HOUSING COSTS

LINKAGE GRADES	CIVILIAN SALARY AT LINKAGE GRADE	ESTIMATED FAMILY INCOME	RENTAL COSTS	OWNER COSTS	PROPORTION OF TOTAL		WEIGHTED AVERAGE COSTS
					RENTER	OWNER	
E-3/GS-3 (Step 2)	\$7,339	\$ 9,531	\$1,737	\$1,872	43%	57%	\$1,814
E-7/GS-7 (Step 4)	12,150	15,779	2,072	2,363	21	79	2,302
O-2/GS-9 (Step 2)	13,931	18,092	2,173	2,544	21	79	2,466
O-5/GS-14 (Step 3)	28,651	37,209	2,795	4,045	13	87	3,883

CIVILIAN FOOD COSTS

Unlike housing expenses, there is no annual survey of food expenditures by Federal government data collection agencies. As a result, it is necessary to use less direct data for calculating food expenditure offsets to determine the Net Salary Standard. There are several alternative sources for estimating food costs for an individual:

(1) Consumer Expenditure Survey, BLS took a one year detailed survey of actual civilian expenditures for food by income levels. (Consumer Expenditure Survey Series: Dairy Survey, July 1973-June 1974). These data were compiled from diaries of actual consumer expenditures maintained by a sample of approximately 10,000 families. This survey is the only comprehensive source of detailed information on actual expenditures by family size and income level. It includes food at home and away from home. While actual expenditures are the most appropriate data, the BLS survey is not taken on a regular basis. Data from 1974 requires adjustments to both the food expenditure figures to reflect the food cost increases since that time period and the change in income

levels since that period in relation to the food cost increases. Alternatively, the BLS data could be used by making an assumption that food expenditures as a function of income remains relatively stable. While this assumption may be correct for short periods of time, it should not be extended indefinitely. Since this BLS survey is not updated regularly, and its next update is uncertain, it is undesirable as the primary data source for calculating civilian food expense.

(2) Agriculture Family Food Plan. The Department of Agriculture publishes data on the cost of food at home for various age categories and family sizes. (See Attachment I.) Estimates of food costs at three assumed food plans are shown for each of the categories. These plans represent three levels of cost for food at home. However, they do not reflect how much people actually spend for food, and do not relate food expenditures to income levels, though food expenditures vary significantly by income level. They are therefore not useful for estimating civilian food cost.

(3) BLS Family Budgets. The Bureau of Labor Statistics publishes annually three hypothetical family budgets which portray the costs of three relative standards of living - described as lower, intermediate, and higher (U.S. Department of Labor Report 76-759, May 5, 1976). These budgets are based on direct pricing done in 1969, updated annually through BLS CPI adjustments. The budgets do not show how families of this type actually spend their money. They represent

assumptions made about the manner of living at each of the three levels. The budgets are broken down into various consumption categories including a food budget that represents food at home and away from home. Attachment 2 shows the 3 budget levels for an urban family of 4 and the food expenditure portion of the budgets. The BLS Family Budgets also show total consumption budgets for single persons, also shown in Attachment 2. Although BLS does not break down the total consumption budgets of single persons into each of the individual consumption items, it is possible to estimate food expenditures for single persons and families of four. The ratio of food expenditures of singles to families with four members reported in the BLS Consumer Expenditure Survey (described in (a) above) was .36. This very closely parallels the relationship between the total consumption budget of singles and their model family of four at each of the three budget levels (.35). Therefore, the relationship between the food element and the total consumption of the four member model family can be applied to the total consumption estimate of the single person family to give a reasonable estimate of food expenditures for a single person. This produces the following estimates of food cost at the three budget levels:

	<u>Lower</u>	<u>Intermediate</u>	<u>Higher</u>
Annual	\$1037	\$1353	\$1695
Daily	\$2.84	\$3.71	\$4.64

The estimated family income of heads of household earning salaries of the General Schedule linkage grades correspond approximately to the BLS family budgets as follows:

	<u>Family Budget Level</u> ¹		
	<u>Lower</u>	<u>Intermediate</u>	<u>Higher</u>
Total Budget	\$9,588	\$15,318	\$22,294
GS-3, Step 2	9,531		
GS-7, Step 4		15,779	
GS-9, Step 2		18,092	
GS-14, Step 3			37,209

¹

Estimates of family income from General Schedule salaries is explained in Tab C, Appendix 1. While the family income at the GS-14 level is significantly higher than the BLS family budget, food expenditures should not be appreciably higher. The Consumer Expenditures Survey shows that the actual dollar amount of food expenditures remains relatively constant past the \$20,000 family income level.

Tab D-4

On this basis the civilian food cost for the Net Salary standard at the linkage grades will be as follows: GS-3, lower budget (\$1,037); GS-7 and GS-9, intermediate budget (\$1,353); GS-14, higher budget (\$1,695).

In summary, there is no best single source for determining civilian food cost as there is for determining civilian housing expense. The BLS Family Budgets, factored for the single person using the BLS Consumer Expenditure Survey was chosen as a reasonable and stable basis because: (1) the data is updated annually by BLS; (2) they cover food both at home and away from home; (3) they realistically show food expenditures increasing with income. The drawbacks with using this source are: (1) they do not reflect actual food expenditures; and (2) the annual update is based on CPI rather than on direct pricing.

Cost of Food at Home ^{1/} Estimated for Food Plans
at Three Cost Levels, September 1975, U.S. Average

Sex-age groups	Cost for 1 week			Cost for 1 month		
	Low-cost plan Dollars	Moderate- cost plan Dollars	Liberal plan Dollars	Low-cost plan Dollars	Moderate- cost plan Dollars	Liberal plan Dollars
<u>FAMILIES</u>						
Family of 2: ^{2/}						
20-54 years.....	29.10	36.60	44.10	126.30	158.70	191.20
55 years and over.....	25.70	32.00	38.40	111.40	138.80	166.30
Family of 4:						
Children, 1-2 and 3-5 years....	40.90	51.10	61.50	177.20	221.60	266.50
Children, 6-8 and 9-11 years...	49.50	62.10	74.80	214.30	269.30	324.00
<u>INDIVIDUALS ^{3/}</u>						
Child:						
7 months to 1 year.....	5.40	6.70	7.90	23.50	28.80	34.20
1-2 years.....	6.60	8.10	9.70	28.40	35.10	41.90
3-5 years.....	7.80	9.70	11.70	34.00	42.20	50.80
6-8 years.....	10.20	12.80	15.40	44.20	55.50	66.70
9-11 years.....	12.80	16.00	19.30	55.30	69.50	83.50
Male:						
12-14 years.....	13.60	17.10	20.50	59.00	74.00	88.90
15-19 years.....	15.10	18.90	22.80	65.40	82.00	98.80
20-54 years.....	14.70	18.60	22.50	63.80	80.60	97.40
55 years and over.....	12.90	16.10	19.40	55.80	69.70	83.90
Female:						
12-19 years.....	12.10	15.10	18.00	52.50	65.20	78.00
20-54 years.....	11.80	14.70	17.60	51.00	63.70	76.40
55 years and over.....	10.50	13.00	15.50	45.50	56.50	67.30
Pregnant.....	14.50	17.90	21.40	62.80	77.60	92.70
Nursing.....	15.40	19.20	23.00	66.90	83.20	99.50

^{1/} These estimates were computed from quantities in food plans published in Family Economics Review, Winter 1975. The costs of the food plans were first estimated by using the average price per pound of each food group paid by urban survey families at three selected food cost levels in 1965-66. These prices were adjusted to current levels by use of Retail Food Prices by Cities released periodically by the Bureau of Labor Statistics.

^{2/} Ten percent added for family size adjustment. See footnote 3.

^{3/} The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person--add 20 percent; 2-person--add 10 percent; 3-person--add 5 percent; 5-person--subtract 5 percent; 6-or-more-person--subtract 10 percent.

U.S. Department of Agriculture
Agricultural Research Service
Consumer and Food Economics Institute
Hyattsville, Maryland 20782

Attachment 1
to Tab D

HYPOTHETICAL FAMILY BUDGETS

Autumn 1975

	<u>Lower</u>	<u>Intermediate</u>	<u>Higher</u>
Total Budget	\$9,588	\$15,318	\$22,294
Total Consumption	\$7,795	\$11,725	\$16,141
Food Expenditures	\$2,952	\$ 3,827	\$ 4,819
Total Consumption for Singles	\$2,730	\$ 4,100	\$ 5,650

Source: Bureau of Labor Statistics, USDL 76-759

BASIC ALLOWANCE FOR QUARTERS AND BASIC
ALLOWANCE FOR SUBSISTENCE UNDER THE
MODERNIZED TAXABLE PAYS AND ALLOWANCE SYSTEM

a. Basic Allowance for Quarters.

The Basic Allowance for Quarters (BAQ) will be set to defray costs based on housing expenses experienced by military personnel. The annual Naval Facilities Command (NAVFAC) survey covers both rental and homeownership costs by pay grade. The national average military housing expense for each pay grade determined from this survey will be used as the basis for establishing BAQ rates. For implementation of this pay system, the survey would have to be refined to also include rental and homeownership expenses of bachelors and possibly to modify its timing to more closely approximate the timing of annual pay adjustments or of BLS surveys used to calculate the "net salary standard" link. Currently the NAVFAC survey covers only housing cost of married personnel. Data from the latest survey (January 1976) are used in calculating married BAQ rates. The current relationship of bachelor BAQ to married BAQ is used to estimate bachelor housing costs until bachelor housing costs are collected.

b. Basic Allowance for Subsistence.

The Basic Allowance for Subsistence (BAS) rates will be set based on a food cost index which reflects the food cost experience of military personnel. A single BAS rate will be established for enlisted personnel in recognition of the government's obligation to provide subsistence to military members and that this obligation does not vary by pay grade. The current inversion of officer and enlisted rate is a result of the peculiarities of successive pay adjustment mechanisms. There is no need to subsist officers at levels different from enlisted personnel. Therefore for equity officer and enlisted cash subsistence rates will be set at the same rate.

There is no data on how much military personnel actually spend for food. In lieu of that data, there are several alternatives which can be used as the basis for BAS rates:

- The raw food cost of a daily ration to the Department of Defense. The current rate is \$2.73. This alternative has the advantage of equalizing the allowance of enlisted members receiving subsistence in cash and in kind and of officers and enlisted members. It is also quite close to the BLS

consumption budget daily food cost for lower budgets. It has the disadvantage of not accurately reflecting average food costs of military members who do not receive subsistence in kind.

- A food cost index which measures the cost of subsisting an individual on the civilian economy. There are three data sources available for measuring food costs on the economy: (1) The Consumer Expenditure Survey Series which measures actual food expenditures; (2) The Department of Agriculture estimate of the cost of food at home for defined food plans; (3) and the BLS Family Budget levels which estimate costs, both at home and away, at three defined standards of living. This latter index is the best of the three data sources for accurately measuring, on a continuing basis, food cost expenditures on the civilian economy. The intermediate budget level, equal to \$3.71 per day, is an appropriate BAS rate since it represents food costs of people subsisting at their own expense and since a single BAS rate will be established for all military grades. It can also be considered an appropriate charge to members on cash BAS who at their own option use government messing facilities as including the portion of mess operating costs not attributable to military and contingency requirements.¹ This alternative will be used as the basis for BAS rates in this paper.

Attachment 1 shows the estimated EAQ and BAS rates using this methodology.

¹ See QRM C Staff Research paper "Subsistence", 17 November 1975 for discussion of this issue.

ESTIMATED MONTHLY BASIC ALLOWANCE FOR QUARTERS (BAQ) AND BASIC
ALLOWANCE FOR SUBSISTENCE (BAS) UNDER THE MODERNIZED PAYS
AND ALLOWANCES SYSTEM

GRADE	BAQ With Dependents		BAQ Without Dependents		BAS	
	MODERNIZED 1/	CURRENT	MODERNIZED 3/	CURRENT	MODERNIZED 4/	CURRENT
O-10	\$620 2/	\$319	\$496	\$255	\$113	\$53
O-9	620 2/	319	496	255	113	53
O-8	620 2/	319	496	255	113	53
O-7	620 2/	319	496	255	113	53
O-6	556	286	456	235	113	53
O-5	502	265	417	220	113	53
O-4	457	239	379	198	113	53
O-3	383	217	310	176	113	53
O-2	303	195	239	154	113	53
O-1	258	157	199	121	113	53
W-4	441 2/	230	366	191	113	53
W-3	376 2/	212	305	172	113	53
W-2	300 2/	193	237	152	113	53
W-1	293 2/	178	226	137	113	53
E-9	335 2/	204	238	145	113	77
E-8	313	191	222	135	113	77
E-7	288	179	187	116	113	77
E-6	258	166	165	106	113	77
E-5	218	154	146	103	113	77
E-4	187	134	125	90	113	77
E-3	177	116	122	80	113	77
E-2	177 2/	116	108	71	113	77
E-1	177 2/	116	101	67	113	77

1/ Average off post housing costs as developed from January 1976 NAVFAC Survey.

2/ Insufficient number of responses in NAVFAC Survey for these grades to estimate housing costs. Estimates of housing costs for these grades was based on the current BAQ relationships at the following: O-10 through O-7 to O-6; W-4 to O-4; W-3 to O-3; W-2 to O-2; W-1 to O-1; E-9 to E-8; E-1 and E-2 to E-3.

3/ Estimated by applying the current relationship of without dependents BAQ to with dependents BAQ to the modernized with dependents BAQ rates.

4/ BLS Family Consumption Budgets, intermediate budget level.

Attachment 1
to Tab E

BASIC PAY RATES UNDER THE MODERNIZED
TAXABLE PAYS AND ALLOWANCES SYSTEM

The basic pay tables under the modernized pays and allowances system will be constructed based on the following criteria:

Pay Table Criteria.

a. Linkage.

Military basic pay is based on whole grade work level linkages with the General Schedule at the following points: E-3 to GS-3 and E-7 to GS-7; O-2 to GS-9 and O-5 to GS-14.

b. Core Longevity Steps.

The construction of the pay tables centers around promotion points for each of the grades and the number of years spent in the grade until promotion to the next grade and until retirement, or force out, after promotion to the grade. Along with accession and retention considerations, these features of the military personnel management system will serve as a guide in constructing the basic pay tables. The point in the grade at which promotion occurs is identified as the "core" longevity step for that grade. In the officer pay table, the "core" longevity step is the DOPMS promotion flow point. In the enlisted pay table, the "core" longevity step is the average years of service at promotion in the Enlisted Management Systems Plan. The line which connects the pay at the core longevity steps in the basic pay tables is defined as the payline. Tab F-1 shows the longevity step at each pay grade which forms the two military paylines.

c. Basic Pay Rates at the Linkage Grades.

Basic pay rates at the two linkage points in each payline will be set based on a "net salary standard" which is derived from the linked General Schedule salary. This "net salary standard" is created by deducting from civilian basic salary the expense elements for food and shelter. Military basic pay at the linkage grades will be set such that basic pay is equal to the "net salary standard". The determination of basic pay at the linkage grades using the methodology and data sources described, and the associated military equivalent salaries, are shown at Tabs F-2 through F-5.

The General Schedule salaries at the linkage points are those which result from entry into or promotion to those grades. Data on the entire General Schedule is not yet available. Until it is, data on DoD civilians will be used to represent it. The General Schedule linkage salaries will be determined as follows:

(1) In calendar year 1975, the average step upon promotion to GS-3 of Department of Defense civilians, consisting largely of employees in the technical/clerical occupational grouping, was Step 2. Therefore, the E-3 basic pay at the core longevity step (over one year of service) is set based upon the "net salary standard" which results from the salary of GS-3, Step 2, or \$7,339 per year.

(2) Generally speaking, GS-7 occupations which are analogous to jobs filled by the E-7 are those which are classified in the technical/

clerical schedule under the new Civil Service schedules proposed by the President's Panel on Federal Compensation (Rockefeller Panel).

Therefore, the average step upon promotion to GS-7 in technical/clerical occupations is used to set the E-7 salary at the core longevity step. This will be consistent with the recommendation of the Rockefeller Panel to separate the current General Schedule into two schedules, one covering executive/professional/administrative occupations and the other covering technical/clerical occupations. Salaries of executive/professional/administrative employees will be set on a national average basis while salaries of technical/clerical employees will be set on a locality basis. In 1975, the average step on promotion to GS-7 of Department of Defense civilians in the technical/clerical occupational grouping was Step 4 to the nearest whole step. (See Tab F-6) The E-7 basic pay at the core longevity step (over 14 years of service) is set based upon the "net salary standard" which results from the salary of GS-7, Step 4, or \$12,150 per year.

(3) The O-2 occupations at the GS-9 level are generally those that would be classified in the executive/professional/administrative schedule, whose salaries will be set on a national average basis. The basic pay of the O-2 is, therefore, based on the average step at promotion to GS-9 in professional and administrative occupations. In 1975, the average step on promotion of Department of Defense civilians in these occupational groupings was Step 2 to the nearest whole step. The

O-2 basic pay at the core longevity step (over two years of service) is set based upon the "net salary standard" which results from the salary of GS-9, Step 2, or \$13,931 per year.

(4) In 1975, the average step upon promotion to GS-14 of Department of Defense civilians, all of whom are classified in professional/administrative occupations, was Step 3. Therefore, the O-5 basic pay at the core longevity step (over 16 years of service) is set based upon the "net salary standard" which results from the salary of GS-14, Step 3, or \$28,651 per year.

d. Intergrade Differentials.

The intergrade differential sets the difference in basic pay rates between grades at the core longevity steps. The differentials which currently exist in basic pay at the core longevity steps is retained in the modernized pays and allowances basic pay table. The current differentials in basic pay was selected as appropriate intergrade differentials because basic pay is the element of military compensation which has been shaped over a period of years to meet the unique personnel management requirements of the services and the levels of which reflect work level distinctions between the grades. The shape of the General Schedule payline was not considered because it has been structured to meet personnel requirements of a civilian force significantly different from that of the military. RMC "payline" differentials were also considered for this purpose. They were rejected because three elements of

RMC--basic allowance for quarters, basic allowance for subsistence, and tax advantage--bear no relationship to the purpose of the intergrade differentials (i. e., to make pay distinctions to reflect work level distinctions). Currently, and under the taxable modernized pays and allowances system, these two allowances are based primarily on need and without regard to longevity and the tax advantage element under the current system is influenced by the vagaries of U.S. income tax laws. Therefore, RMC is not useful for establishing basic pay intergrade differentials under a modernized taxable pays and allowances system.

e. Longevity Steps

(1) Time Interval Between Steps.

Longevity pay increases serve as an economic incentive to remain in service and are to recognize and reward individual performance improvements which, on the average, occur with additional time spent in service. The annual matching pay increases keep overall military pay abreast of wage movements in the private sector. The two-year intervals which occur between most of the longevity steps in the present pay table are retained in the basic pay tables as reasonable intervals between performance-related increases. However, exceptions to this general rule are made by retaining the longevity step at the three years of service point which is in the current basic pay table and adding a longevity pay step at the 1-year point. Therefore, one year intervals occur between longevity step increases in the first four years of service and two-year intervals thereafter. The shorter time period between longe-

vity pay increases in the first four years of service is consistent with the practice in the private sector of frequent pay increases in the early years of employment. Kramer Associates, Inc. in a study of entry level compensation practices in the civilian sector for the Third QRCM,^{1/} reported that:

- Entry-level professional employees, who correspond roughly to newly commissioned officers, are promoted after one year and, on the average, receive salary increases of 15 percent.
- Employees in entry-level office occupations can generally attain the second level in three to six months.
- Apprentices in skilled trade programs, usually three to four years in duration, receive a pay increase after six months and another increase after one year.

In the enlisted basic pay table, these early pay increases upon entry are provided through promotion. Under enlisted force management plans, promotion to E-2 occurs after six months service and promotion to E-3 occurs after one year. However, under the current basic pay tables the entry commissioned officer does not receive a pay increase for two years when, under DOPMS, promotion to O-2 occurs. Therefore, the one-year longevity step pay increase is added to give earlier recognition to the performance improvement achieved by the officer after commissioning.

(2) Number of Longevity Steps

(a) Officer Basic Pay Table

There were several factors considered in determining the

^{1/}Entry Level Compensation Practices In The Civilian Sector,
Kramer Associates, Inc., August 6, 1976.

number of longevity steps in the officer basic pay table. These considerations include the Defense Officer Personnel Management System (DOPMS), which defines the longevity steps for each grade steps at which normal promotion will occur. Longevity increases beyond the DOPMS promotion flow points are unnecessary since the necessity for providing an economic incentive is eliminated. However, since the promotion points contained in DOPMS are subject to change, a measure of flexibility is provided in the pay table by adding one longevity pay increase past the normal promotion point to the next grade. Under this criteria, the longevity pay increases terminate at the following steps: 0-1, 3 years; 0-2, 6 years; 0-3, 12 years; 0-4, 18 years; 0-5, 24 years.

Additional longevity steps are then added to those determined under the DOPMS criteria for grades 0-1, 0-2, and 0-3. This permits elimination of the current separate table for commissioned officers with enlisted service (0-1E, 0-2E, and 0-3E). When that separate table was originally established, the major justification was to preclude pay inversions on initial commissioning and to avoid inequities for those who were commissioned with considerably more than four years enlisted service. The 1971 all-volunteer forces pay raise eliminated the first problem area. The second problem can be eliminated by extending the basic commissioned officer basic pay table intragrade progression to cover personnel commissioned with prior enlisted service. The number of additional longevity steps for each of the grades are created based on the following considerations:

- At least ten years of commissioned service are required for retirement at twenty years. Therefore, ten years service would be the

normal maximum service that an enlisted member would have upon being commissioned.

- Under DOPMS the normal flow point to O-3 is at four years of commissioned service. Thus fourteen years would be the normal maximum years of total service an officer would have upon promotion to O-3.

- Under DOPMS an officer remains six years in grade O-3 before promotion to O-4. The officer with the normal maximum enlisted service who was promoted in "due course" would reach retirement eligibility of 20 years while in grade O-3. Therefore, longevity increases in grade O-3 are extended to the 18 year point to provide longevity increases up to the 20 year retirement point.

- Longevity steps for O-2 end at the 14 year point and for O-1 end at the 12 year point since under the DOPMS flow points, promotion or force out will occur before going past these points.

- In the main segment of the officer corps, less than 3% are currently in these "extra" longevity steps. Under DOPMS those longevity steps will be limited essentially to officers with prior enlisted service since regular commissioned officers will be promoted or forced out before reaching these longevity steps. The additional cost of paying the officers who are currently in these extra longevity steps at the proposed basic pay rates would only be approximately \$1.6 million.

DOPMS criteria cannot be applied in determining the terminal longevity steps for grades O-6 through O-10 since there are no promotion flow points to general and flag officer grades. For grade O-6, longevity steps are added at the 24 and 28 years service points to smooth out the O-6 departures from service by serving as an inducement to remain on active duty. This is consistent with the design of the Retirement Modernization Act (RMA) to encourage service to 30 years before retirement. Longevity increases are also added for general and flag officer grades at the 28, 30, and 32 year service points. These steps are added in recognition of the fact that most general and flag officers serve past 30 years before retirement, and provide remuneration for that service.

(b) Enlisted Basic Pay Table

Unlike the officer force, the enlisted force does not have common promotion points nor are promotions specifically managed to occur at a given point. There are considerable differences in the number of years at promotion among the services. For these reasons, there is a wide dispersion around the "core" longevity step of enlisted personnel in each pay grade; this reduces the usefulness of the "core" longevity step as a basis for differential longevity increase rates to contribute to continuation policies.

Therefore, while the identification of "core" longevity steps based on an objective enlisted force is used as a guide in establishing an enlisted basic pay line, it is not applied rigidly in constructing the pay table. The pay table must have the flexibility to fit changing force objectives and promotion opportunities in a force less rigidly controlled by "up-or-out" policies than is the officer force. To provide this flexibility, the longevity steps for each grade must extend to the point to which continuation on active service is authorized. Therefore, the basic enlisted pay table will be structured such that longevity pay increases occur up to that longevity step in each grade just preceding the authorized tenure for that grade under current enlisted management plans.

The authorized tenure under current management plans are as follows: E-4, 10 years; E-5, 20 years; E-6, 23 years, E-7, 26 years; E-8, 28 years; E-9, 30 years.

Since the average longevity step at which promotion occurs in each grade can vary from the enlisted management objective "core" longevity step over a period of time, and because these promotion points will tend to vary among the services, a constant percentage intragrade differential is applied to all of the longevity steps in each pay grade.

(f) Intragrade Differentials

11

Intragrade differentials set the dollar difference between longevity steps within a particular pay grade. The current basic pay tables have no regular pattern of differentials. They range from 1.2% to 15.8% in an irregular array. To rationalize intragrade differentials in the basic pay tables, civilian practice in this area is used as a guide. However, the military force is managed primarily on the basis of entry at the bottom and career progression through the grades on a competitive performance basis. Therefore, intragrade longevity increases in pay will be kept subordinate in importance to the increases which result from promotion.

The General Schedule salary table is constructed such that there is a 30% differential between Step 1 and Step 10 in all of the grades. This averages out to an intragrade differential of about 3% between steps.

There is no consistent pattern of practice in the private sector regarding intragrade differentials. A 1974 survey of compensation practices by the Civil Service Commission showed that while length-of-service pay increases are quite common in state and local governments, they play a much less significant role in employee pay adjustment practices for private and non-profit organizations. In private sector organizations which use a step rate pay structure, the median intragrade step differential is between 3% and 4%.

An intragrade differential of 3% is established for the military grades. This differential was chosen because it is consistent with the intragrade differentials in the federal civil service and in private industry. At the basic pay rates involved, a 3% differential is the minimum rate which allows pay increases of a meaningful dollar amount.

Within this framework of comparability with civilian longevity practice, military accession and retention considerations must be taken into account in the early years of service. Generally speaking the initial period of military service obligation occurs within the first four years of enlisted and the first six years of officer service. Determination of intragrade differentials in these segments of the pay table are discussed in the sections on each.

Using these criteria, the military basic pay tables under a modernized taxable pays and allowances system are constructed as follows:

1. Enlisted Basic Pay Table

a. Setting Basic Pay at the Core Longevity Steps

Basic pay at the core longevity steps of grades E-3 and E-7 are based on work level linkages to the General Schedule at grades GS-3, Step 2 and GS-7, Step 4 as shown at Tabs F-2 and F-3. Basic pay at the core longevity steps of the grades between E-3 and E-7 are set based on the intergrade differentials of basic pay which currently exist between these grades (See Tab F-8). Thus the basic pay of E-4 at the core longevity step for that grade is 1.162 times \$4,488. The intergrade differentials in the current enlisted basic pay table are then applied to the rest of the grades up to E-7.

However, application of these differentials to the core basic pay for E-3 yields a basic pay of \$8,802 for E-7. This is \$307 over the linked pay of \$8,495 for the E-7. To fit the enlisted payline to the two linkage points, this overage is proportionally prorated to the existing intergrade differentials between E-3 and E-7. The resultant enlisted basic pay-

line and differentials are shown at Tab F-8.

Basic pay rates for E-1 and E-2 are set by stepping down from the linked E-3 basic pay by the percentage differentials in the current pay table. Likewise, "core" longevity basic pay levels for E-8, E-9, and Sergeants Major are set by stepping up from the linked E-7 basic pay by the intergrade differentials in the current pay table.

b. Pay Grades E-1 through E-4 with less than 4 Years' Service.

Accession and retention considerations predominate through the first four years of enlisted service. Promotions occur rapidly up to grade E-4. Thus, the primary pay motivating factor is provided through the pay increases which result from promotion rather than from longevity in a grade. In FY 1976, most of the first term enlistments were for a period of three or four years (40% three year enlistments and 54% four year enlistments). Therefore, in constructing the enlisted pay table for this group it is necessary that: (1) entry level pay be competitive with civilian employment so that, in conjunction with the enlistment bonus program, the military services can meet their accession requirements; and (2) there be significant pay increases at the three and four years of service point to provide an incentive to extensions and reenlistments to continue in military service.

c. Entry Level Pay.

The competitive criteria is met by establishing E-3 pay based on linkage to GS-3. Pay for E-1 and E-2 is then derived by

Tab F

stepping down from the linked E-3 basic pay by the basic pay percentage differentials in the current pay system. This produces a monthly basic pay of \$323 (annual rate of \$3,877 per year) for the E-1.

Without conscription the military must compete with the private sector in the recruiting and retention of full-time permanent personnel. E-1 pay must be competitive with the pay of entry level workers in the private sector. Therefore, The E-1 military pay set by this methodology described was assessed against civilian pay practices for entry pay and pay of similar age groups.

In addition to basic pay, the E-1 is also provided government quarters and subsistence or cash allowances for these items.

Under the modernized taxable pays and allowances system, the cash quarters and subsistence allowances are based on actual expenditures for housing and food by military personnel. Food expenses for E-1 are estimated from the intermediate budget of the BLS Family Budget series to be \$113 per month and housing expenses are estimated from the NAVFAC survey to be \$177 per month for married personnel and \$101 per month for bachelors (see Attachment 1 to Tab E). The Regular Military Compensation (RMC) for single E-1's is \$537 per month and the family RMC is \$613 per month. Overall average RMC is \$549 per month (\$6,588 per year).

For purposes of comparison a study of entry level pay practices in the civilian sector was made.¹ The study found very few parallels in the private sector to the indoctrination training, as distinguished from training in a specific skill or trade, which is characteristic of military basic training.

There are a few government sponsored programs, such as the Job Corps and programs under the Manpower Development and Training Act (MDTA), which may bear some similarity to recruit training. However, many of these programs are aimed at disadvantaged and unemployable youths, many of whom cannot qualify for enlistment in the military. In addition, many of these programs are not permanent employment opportunities, but are intended only to improve the ability to later find and hold a job. Once the period of training is over, the enrollee is not employed, but then begins to seek employment. Pay scales in such programs are not therefore of great usefulness for comparisons purposes. The Kramer study reported that 1975 first-level earnings of jobs comparable to enlisted men's office-type specialties were \$549 per month, and the average salary of jobs comparable to enlisted men's specialties other than office (for example, guards and watchmen, laborers, truck drivers) were \$637 per month. The first, or entry-level, is the lowest pay grade in an occupation, one into which an inexperienced worker is hired.

¹ Entry Level Compensation Practices In The Civilian Sector, Kramer Associates, Inc., August 6, 1976.

Earnings of first stage apprentices in typical labor union apprenticeship programs range from \$471 per month for electricians to \$887 per month for newspaper compositors, with the salaries generally falling in the \$500-600 range.

Weekly earnings of age groups in the civilian sector from which the military normally recruit enlisted personnel range from \$104 for 17-years olds to \$156 for 20-year olds (Tab F-7). The \$127 average cash RMC for the E-1 (\$6,588 divided by 52 weeks) falls in the range of earnings of 18 and 19 year old males in the private sector.

On balance, therefore, the average cash RMC for the E-1 (\$549 per month/\$127 per week), in conjunction with the system of bonuses for critical specialties, should result in pay levels that are competitive with those paid in the private sector.

d. Retention Considerations

A significant financial incentive is required for retention purposes, at the three and four year service points. In FY 76, about 40% of first term enlistments are for a period of three years and about 54% are for four years. The primary first term reenlistment pool are personnel in grades E-4 and E-5. On average these grades will have been achieved by the end of three and four year first enlistments.¹ In addition, about 85% of military personnel eligible to reenlist after their first term are E-4 or E-5.²

1 The length of service at promotion to E-4 in the FY 77 budget submission is: Army, 1.92 years; Navy, 2 years; Air Force, 2.5 years; Marine Corps, 2.83 years.

2 In FY 75 and FY 76, 62% were E-4, 23% E-5.

For these reasons a three year longevity step is provided with large increases for average promotion to E-4 and early promotion to E-5. The four year longevity step provides a large increase at the normal or payline promotion point to E-5. A larger than normal longevity increase is also provided at the four year longevity step in the E-4 grade. An increase of 50% of that which would result from promotion to E-5 was selected.

2. Officer Basic Pay Table

Basic pay at the core longevity steps of grades 0-2 and 0-5 are based on work level linkages to the General Schedule at grades GS-9, Step 2 and GS-14, Step 3 as shown at Tabs F-4 and F-5. Basic pay at the core longevity steps of the grades between 0-2 and 0-5 are set based on the intergrade differentials of basic pay which currently exist between these grades (See Tab F-8)

However, application of these differentials to the core basic pay for 0-2 yields a basic pay of \$21,185 for 0-5. This is \$1,888 short of the linked basic pay of \$23,073 for 0-5. To fit the officer payline to the two linkage points, this shortage is proportionally prorated to the existing intergrade differentials between 0-2 and 0-5. The resultant officer basic payline and differentials are shown at Tab F-8.

The "core" longevity basic pay rates for 0-6 through Chief of Staff are set by stepping up from the linked 0-5 core step by the intergrade differentials in the current basic pay table.

The basic rate for 0-1 is set by stepping down from the linked 0-2 basic pay by the basic pay percentage differential in the current pay table.

As was described for enlisted payline, accession and retention considerations are of primary importance in shaping the basic pay table through the first six years of commissioned service. Currently initial service and training obligations for officers range from three to six years. Therefore, for retention purposes significant pay increases should occur at these longevity steps. Promotions from 0-1 to 0-2 and 0-3 are virtually automatic during this time period. Thus intragrade differentials (longevity increases) are relatively much more important during the first six years than for the remainder of the pay table. Therefore, longevity increases between normal promotion points for the 0-3 under six year population are increased from the normal 3% of core step basic pay to 50% of the amount that would result from promotion. This effects the longevity step increases at the three year, four year, and six year points. Entry level salaries for jobs in the private sector comparable to officer grades typically range from \$905 to \$1,076 per month. The influence of a year of experience seems relatively uniform, the second level pay averaging about 15% above the first. While there is no firm rule that a worker will rise to the second level after one year, it does appear to be a common interval.¹

¹ Kramer op cit p 16. Kramer emphasizes that the duties of most, if not all, officers may have little resemblance to the private sector occupations used for comparison. Kramer's comparisons were based on qualifications (Baccalaureate degree, no experience in intended speciality) of the entrants into the jobs used, rather than on job content.

Proposed officer entry level average RMC is \$1,010 per month. This is within the range of salary averages cited by Kramer.

3. Warrant Officer Basic Pay Table

The basic pay relationship that currently exists between Warrant Officer grades and commissioned officer grades is used to construct the Warrant Officer basic pay table. Basic pay is identical between Warrant Officer and commissioned officer grades at the following points: W-1/10 years and 0-1/3 years; W-2/6 years and 0-2/2 years; W-3/18 years and 0-3/4 years; W-4/14 years and 0-4/6 years. This relationship is retained in the Warrant Officer basic pay table for these longevity steps. Basic pay for the other longevity steps in the Warrant Officer basic pay table are set using the 3% intragrade differentials.

Military basic pay tables based on the Methodology and criteria described are shown at Tab F-9.

MILITARY PAYLINE CORE LONGEVITY STEPS

<u>Grade</u>	<u>Longevity Step on Payline</u>
O-1	<1
O-2	2
O-3	4
O-4	10
O-5	16
O-6	22
O-7	28
O-8	30
O-9	30
O-10	30
E-1	< 1
E-2	< 1
E-3	1
E-4	3
E-5	4
F-6	8
E-7	14
F-8	18
E-9	22

MILITARY PAY STANDARD
E-3, 1 Year of Service

GS-3, Step 2
Salary

\$7,339
Housing Cost \$1,814
Food Cost \$1,037
Net Salary Standard \$4,488

E-3
Proposed Average Military
Equivalent Salary

\$7,532
BAQ ¹ \$1,691
BAS \$1,353
Basic Pay \$4,488

E-3
Current Average Military
Equivalent Salary

\$7,511
BAQ \$1,110 ²
BAS \$923
Tax Advantage \$460 ³
Basic Pay \$5,018

¹Weighted average BAQ. Married BAQ from NAVFAC survey is \$2,124. Single BAQ is 69% of the married rate or \$1,464.

²Weighted average of married BAQ, \$1,393 and single BAQ, \$923.

³Weighted average tax advantage. Single rate is \$467 and average family rate is \$447.

MILITARY PAY STANDARD
E-7, 14 Years of Service

GS-7, Step 4
Salary

\$12,150
Housing Cost
\$2,302
Food Cost
\$1,353
Net Salary Standard
\$8,495

E-7
Proposed Average Military
Equivalent Salary

\$13,178
BAQ ¹
\$3,330
BAS
\$1,353
Basic Pay
\$8,495

E-7
Current Average Military
Equivalent Salary

\$13,499
BAQ ²
\$2,067
BAS
\$923
Tax Advantage ³
\$667
Basic Pay
\$9,842

¹ Weighted average BAQ. Married BAQ from NAVFAC survey is \$3,456. Single BAQ is 65% of the married rate or \$2,244.

² Weighted average of married BAQ, \$2,146 and single BAQ, \$1,390.

³ Weighted average tax advantage. Single rate is \$616 and average family rate is \$673.

MILITARY PAY STANDARD
O-2, 2 Years of Service

<u>GS-9, Step 2</u> Salary	<u>O-2</u> Proposed Average Military Equivalent Salary	<u>O-2</u> Current Average Military Equivalent Salary
\$13,931	\$14,842	\$13,538
Housing Cost \$2,466	BAQ ¹ \$3,377	BAQ ² \$2,170
Food Cost \$1,353	BAS \$1,353	BAS \$617
		Tax Advantage ³ \$678
Net Salary Standard	Basic Pay	Basic Pay
\$10,112	\$10,112	\$10,058

¹ Weighted average BAQ. Married BAQ from NAVFAC Survey is \$3,636. Single BAQ is 79% of the married rate or \$2,868.

² Weighted average of married BAQ, \$2,336 and single BAQ, \$1,843.

³ Weighted average tax advantage. Single rate is \$664 and average family rate is \$678.

MILITARY PAY STANDARD
O-5, 16 Years of Service

<u>GS-14, Step 3</u> Salary	<u>O-5</u> Proposed Average Military Equivalent Salary	<u>O-5</u> Current Average Military Equivalent Salary
\$28,651	\$30,391	\$26,359
Housing Cost \$3,883	BAQ ¹ \$5,965	BAQ ² \$3,144
Food Cost \$1,695	BAS \$1,353	Tax Advantage ³ \$1,507
Net Salary Standard	Basic Pay	Basic Pay
\$23,073	\$23,073	\$21,071
		BAS \$637

¹Weighted average BAQ. Married BAQ from MAVFAC Survey is \$6,026. Single BAQ is 83% of the married rate of \$5,004.

²Weighted average of married BAQ, \$3,175 and single BAQ, \$2,635.

³Weighted average tax advantage. Single rate is \$1,983 and average family rate is \$1,478.

**MEDIAN WEEKLY EARNINGS¹
FULL-TIME WAGE AND SALARY WORKERS**

<u>Age</u>	<u>Median Earnings</u>	
	<u>Males</u>	<u>All</u>
17	104	102
18	124	116
19	139	128
20	156	133

¹ The median earnings as reported in the Department of Labor May 1975 Survey was updated by the average weekly earnings increase of workers in the private non-farm economy between May 1975 and July 1976.

Commissioned Officer and Enlisted Basic Pay Line

Pay Grade	Length of Service	Current Basic Pay	Intergrade Differentials		Proposed Basic Pay	Intergrade Differentials	
			\$	%		\$	%
C/S	-	\$52,866	\$4,954	10.3%	\$57,816	\$5,400	10.3%
O-10	30	47,912	5,637	13.3	52,416	6,156	13.3
O-9	30	42,275	4,162	10.9	46,260	4,547	10.9
O-8	30	38,113	4,971	15.0	41,713	5,436	15.0
O-7	28	33,142	6,293	23.4	36,277	6,876	23.4
O-6	22	26,849	5,778	27.4	29,401	6,328	27.4
O-5	16	<u>21,071</u>	4,306	25.7	<u>23,073</u>	5,073	28.2
O-4	10	16,765	2,801	20.1	18,000	3,301	22.5
O-3	4	13,964	3,906	38.8	14,699	4,587	45.4
O-2	2	<u>10,058</u>	2,066	25.9	<u>10,112</u>	2,084	25.9
O-1	<1	7,992	-	-	8,028	-	-
M/S	-	\$19,134	\$4,784	33.3	\$16,524	\$4,129	33.3
E-9	22	14,350	2,690	23.1	12,395	2,326	23.1
E-8	18	11,660	1,818	18.5	10,069	1,574	18.5
E-7	14	<u>9,842</u>	1,969	25.0	<u>8,495</u>	1,630	23.7
E-6	8	7,873	1,407	21.8	6,865	1,177	20.7
E-5	4	6,163	634	10.9	5,688	529	10.3
E-4	3	5,832	814	16.2	5,159	671	15.0
E-3	1	<u>5,018</u>	187	3.9	<u>4,488</u>	168	3.9
E-2	<1	4,831	497	11.5	4,320	443	11.5
E-1	<1	4,334	-	-	3,877	-	-

BASIC PAY TABLES UNDER A TAXABLE PAYS AND ALLOWANCES SYSTEM

Pay Grade	<1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
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OFFICER

010	2,642	2,721	2,803	2,887	2,974	3,063	3,155	3,250	3,348	3,448	3,551	3,658	3,766	3,881	3,997	4,117	4,241	4,368	4,499
09	2,332	2,402	2,474	2,548	2,624	2,703	2,784	2,868	2,954	3,043	3,134	3,225	3,325	3,425	3,528	3,634	3,743	3,855	3,971
08	2,104	2,167	2,232	2,299	2,368	2,439	2,512	2,587	2,665	2,745	2,827	2,912	2,999	3,089	3,182	3,277	3,375	3,476	3,580
07	1,883	1,939	1,997	2,057	2,119	2,183	2,249	2,316	2,386	2,458	2,532	2,608	2,686	2,767	2,850	2,935	3,023	3,114	
06	1,668	1,718	1,770	1,823	1,878	1,934	1,992	2,052	2,114	2,177	2,242	2,309	2,379	2,450	2,524	2,600	2,676		
05	1,431	1,474	1,518	1,564	1,611	1,659	1,709	1,760	1,813	1,867	1,923	1,981	2,040	2,101	2,164				
04	1,219	1,256	1,294	1,333	1,373	1,414	1,456	1,500	1,545	1,591	1,639	1,688							
03	884	941	999	1,111	1,225	1,298	1,337	1,377	1,418	1,461	1,505	1,550							
02	746	794	843	938	1,034	1,065	1,097	1,130	1,164	1,199									
01	669	712	756	779	802	826	851	877	903										

0-10 C/S \$4,814

WARRANT OFFICER

W4	1,083	1,116	1,149	1,183	1,219	1,256	1,294	1,333	1,373	1,414	1,456	1,500	1,545	1,591	1,639	1,688			
W3	883	910	937	965	994	1,024	1,055	1,087	1,120	1,154	1,189	1,225	1,262	1,300	1,339	1,379			
W2	727	749	771	794	818	843	868	894	921	949	977	1,006	1,036	1,067					
W1	633	652	672	692	713	734	756	779	802	826	851	877	903	930					

ENLISTED

E9	704	725	747	769	792	816	840	865	891	918	946	974	1,003	1,033	1,064	1,096	1,129		
E8	607	625	644	663	683	703	724	746	768	791	815	839	864	890	917	945			
E7	543	559	576	593	611	629	648	667	687	708	729	751	774	797	821				
E6	479	493	508	523	539	555	572	589	607	625	644	663	683	703					
E5	421	434	447	460	474	488	503	518	534	550	566	583							
E4	393	405	417	430	452	466	480												
E3	374	374	385	397															
E2	360																		
E1	323																		

E9 MS \$1,377

20 October 1976

QUADRENNIAL REVIEW OF MILITARY COMPENSATION

MODERNIZED TAXABLE PAY AND ALLOWANCES SYSTEM

A ASSUMED IMPLEMENTATION PLAN

Implementation Assumptions

1. A new Military Basic Pay for all enlisted, warrant officer and officer grades is set at parity with Federal Civil Service pay based on whole-grade work level linkages with the General Schedule:

E-3 to GS-3

E-7 to GS-7

O-2 to GS-9

O-5 to GS-14 (preferred O-6 linkage not yet available)

2. New BAQ and BAS rates are set based on the cost of off post family quarters and subsistence, with bachelor BAQ at its current relationship to family BAQ.

3. The new system becomes effective 1 October 1978. The current basic pay and BAQ rates are retained for about five years until all active duty members shift to the new tables without loss of basic pay.

4. The new retirement system in the RMA proposal 94-4 is implemented in FY 1979.

5. The major benefit package (leave, holidays, medical absence, insurance, modernized retirement, and health care) is retained at present levels and benefit package adjustments can be made on a General Schedule package linked to the private sector (about 2 years).

6. All bonuses and special pays are unlinked from basic pay and set at specified dollar levels.

a. Officer bonuses and special pays are set such that the cost to DoD is reduced 10%.

b. Because of reductions in enlisted basic pay levels, there will be a substantial increase in enlistment and reenlistment bonuses. Estimating the effects of enlisted payline shifts on bonuses or special and incentive pays are highly judgmental because there isn't an empirical data base that would support such an estimating relationship. Roughly 1/2 the enlisted force is in blue collar or pure military skills and it is those skills that would probably be under paid if a pure General Schedule linkage is used. This suggests a probably theoretical tradeoff of 2:1 in current spendable dollars vs bonus dollars. That is, for every dollar decrease in current member disposable income, we would probably have to increase the amount spent on bonuses or special and incentive pays by 50 cents. This is a very theoretical efficiency estimate because bonus setting methodologies are not exact. But it provides a reasonable order of magnitude estimate of the effect of varying the general payline.

7. The following special pays adjustments are made:

a. Leprosy Pay and Glider Pay are eliminated.

b. The present Certain Places Pay is replaced with a more meaningful Remote Tour Pay authorized for repeated assignments to locations with tour lengths of 12 months or less, where no dependents are authorized for any military member and where they are both isolation and environmental extremes, reducing costs to DOD by 90% in FY 1979.

c. The present Sea Pay is replaced with a more meaningful special pay to recognize cumulative service on sea duty at no substantial increased cost to DOD.

d. Diving Duty pay restructured to provide greater incentives for saturation divers and master divers. Divers are no longer entitled to SDA pay.

e. Optometrist and Veterinarian pays are not renewed.

8. Family Separation Allowance I is based on the new bachelor BAQ rate at by pay grade, and paid to all members (with dependents) separated.

9. FSA II is paid to all members (with dependents) separated.

10. The Dislocation Allowance based on the new BAQ rates is authorized single and married rates, by pay grade, for all on PCS except those going from sea or extended field duty to sea or extended field duty, and those on accession or separation moves.

11. Overseas Station Housing Allowances based on the new BAQ rates by grade, reduce SHA costs 30%.

12. The present COLA is retained. A COLA at 60% of present rates is authorized for all unaccompanied members. These COLA's are paid to all members stationed at the locations at which COLA is now paid. Estimated at 2.1 times the current program costs.

13. A Variable Housing Allowance is enacted and implemented in FY 79 which pays a differential VHA at locations where average military off post housing costs by grade are higher than the overall CONUS average military BAQ by grade.

14. Separation pays in the RMA proposal 94-4 are implemented in FY 79 at the estimated costs to DOD for FY 1978 contained in that proposal.

15. PCS travel entitlements are extended to members in all grades.

16. Pay scales for members of reserve components on duty for training (reserve pay appropriations) are set on a basis independent of the new basic pay scales at no change in DOD FY 78 cost. Annual increases are matched to increases in the new Military Pay increases.

17. Cadet and Midshipman pay is set on an independent scale at the costs estimated in the DOD Legislative Proposal 94-109 for FY 78. Annual increases are matched to increases in the new Military Pay.

18. DOD FICA contributions are based on the new basic pay rates.

19. All other pays denominated in basic pay (such as Reenlistment Bonuses) are established on a new basis not linked to basic pay.

20. Military Pay increases occur annually at the rates used in the FY 1978 President's Budget. (FY 1978=6.5%, 79=6.0%, 80=5.75%, 81=5.25%, 82=4.75%).

21. Annual increases in the current pay and allowances system occur at the same rates. No increases are applied after the 1 October 1980 pay raise.

22. Government quarters are rented initially at local appraised value, thereafter at rates necessary to keep occupancy up, approximated by QRMC DOD cost recovery valuations.

23. Mandatory occupants of government quarters are charged rent at 90% of full rental rate, as a visible protection against manipulation of "mandatory" requirements so as to force full occupancy and maximize post rent income levels.

24. No quarters charge is made to members on sea duty or extended field duty, or to those at isolated posts eligible for Remote Tour Pay.

25. Members assigned to bachelor quarters who are ordered TDY retain their assigned quarters and continue to pay rent at the prescribed rate. Quarters charge is made to members in bachelor quarters on TDY only when full per diem rates are paid.

26. Members assigned to bachelor quarters who are hospitalized retain their assigned quarters and continue to pay rent at the prescribed rate. No quarters charge is made to members hospitalized.

27. Members assigned to bachelor quarters who are required to vacate them for TDY or hospitalization are entitled to a DLA.

28. Cadets and midshipmen at the service academies are on mandatory quarters occupancy. No quarters rent is charged because Cadet Pay is set to reflect receipt of quarters in kind.

29. To estimate the probable level of mandatory quarters occupancy, it is assumed that the current level of bachelor quarters occupants E-1 through E-4 and O-1 through O-2 are required to occupy government quarters for military training and readiness purposes. Ten percent of the current level of all other members currently in government bachelor and family quarters are required to occupy them for military training and readiness purposes. Balance of current quarters occupancy levels are maintained on a voluntary basis. These are assumptions not policy proposals.

30. Officers on sea duty subsist in closed messes. Enlisted members on sea duty, members on field duty, and those required to subsist in a government mess for operational or duty status reasons, or when no alternative source of meals is available, are charged the government raw food cost rounded to the nearest five cents (currently \$2.73 for a full day's ration).

31. Members subsisting in a government mess at their own choice--when a real alternative is available to them--are charged at the BLS average food cost (currently \$3.71 for a full day's ration) to distinguish portion of food delivery system for this service as distinct from contingency requirements.

32. Cadets and midshipmen at the service academies are on mandatory subsistence in kind. No subsistence charge is made because Cadet Pay is set to reflect receipt of subsistence in kind.

33. To estimate the probable level of mandatory government mess usage it is assumed that the current level of enlisted members on sea duty, the current level of enlisted members not authorized BAS, less the "voluntary absentee" rates plus 25% of the level of mandatory officer quarters occupancy are required to subsist in government messes for operational or duty status reasons or because alternative sources are not available.

34. Ten percent of the force uses government mess at own option.

Conversion Assumptions

35. All non-prior service and broken service accessions beginning October 1, 1978 are paid at new pay and allowances rates.

36. All current members are paid at the new BAS rate beginning October 1, 1978.

37. Officers and warrant officers in a saved pay status from previous warrant or enlisted duty who convert to the new basic pay and BAQ are entitled to saved pay based on equivalent warrant or enlisted new basic pay rates at the time of conversion.

38. Retired members on active duty retain the previous basis of retired pay, CPI adjusted forward to date of reentry into retired status.

39. All first term reenlistments and all reserve officer integrations into the regular components beginning 1 October 1979 are paid at the new basic pay rate and BAQ rate.

40. If cash pay under the new system after the raise exceeds cash pay under the old system before the raise, involuntarily convert to new system on 1 October 1979.

41. All other personnel may choose to convert to the new basic pay rate.

42. In the old pay and allowances system reallocate 25% of pay raises in FY 1977 and 1978. No further bachelor rebates.

Supplementary Assumptions

- 43. All bachelors on sea duty choose to convert immediately.
- 44. All bachelors in quarters choose to convert by end of FY 1978.
- 45. Half of those in family quarters convert in FY 1980 remainder in FY 1981.
- 46. Rental rates and subsistence charge rates all increase at same rate as Military Pay increases.
- 47. VHA and SHA rates increase at same rate as Military Pay increases.

SYSTEM COSTS

GENERAL SCHEDULE WHOLE GRADE LINKAGE STANDARD

The cash pay and RMC aspects of the modernized taxable pays and allowances system can be readily compared with the current system. To assess total compensation system costs in relation to the current pays and allowances system an implementation plan was developed, based on decisions where they have been taken and QRM recommendations where they have not. The implementation plan is shown at Tab G. Some allowance elements cannot be readily costed because of lack of data. In these cases a reasonable, but arbitrary, estimate is used. System cost details are shown so that the relative costs and cost tradeoffs can be assessed.

The cost estimates in Tab H are based on the President's FY 77 budget submission and therefore contain October 1975 military pay scales. Previously published QRM Staff Research Papers showing total military compensation displays were based on FY 76 budget costs and October 1974 military pay scales. In addition, the Research Papers on military fringe benefit valuation also used FY 76 budget data. The FY 76 budget data was used because it was the most current at the time the papers were written. This Staff Research Paper and the others contained in Volume X, which deal with structural changes to the military compensation system, were begun subsequent to the military pay raises which occurred in October 1975. Since it was necessary to use the most current pay scales in examining changes to the military compensation system, the October 1975 pay scales were used in these Staff Research Papers.

COMPARATIVE SYSTEM COSTS

(\$ Million)

	<u>Current</u>	<u>Taxable (Tentative Costs)</u>
<u>I. Regular Military Compensation</u>		
Basic Pay	<u>16,054.4</u>	<u>14,827.6</u>
Cash BAQ	<u>3,285.1</u>	<u>5,110.7</u>
Cash BAS	<u>1,844.4</u>	<u>2,822.5</u>
(Tax Advantage)	<u>(1,270.4)</u>	<u>-</u>
(Subtotal	<u>21,183.9</u>	<u>22,760.8</u>
Less;		
Collections for quarters	<u>1,531.6</u>	<u>1,375.4</u>
Collections for subsistence	<u>729.2</u>	<u>1,061.0</u>
Add:		
Adjustments to collections	<u>-0-</u>	<u>506.3</u>
Mandatory Qts Occupancy	<u>-0-</u>	<u>152.4</u>
Short tour areas	<u>-0-</u>	<u>8.0</u>
Afloat	<u>-0-</u>	<u>47.8</u>
EM not eating in mess	<u>-0-</u>	<u>298.1</u>
Cash before taxes	<u>18,923.1</u>	<u>20,830.7</u>
Less:	<u>2,393.2</u>	<u>3,701.1</u>
Federal Income Tax	<u>1,491.0</u>	<u>2,881.8</u>
FICA	<u>902.2</u>	<u>819.3</u>
Cash after taxes	<u>16,529.9</u>	<u>17,129.6</u>
DOD FICA Contribution	<u>902.2</u>	<u>819.3</u>
Total DOD Budget Costs	<u>19,825.3</u>	<u>21,650.0</u>
DOD RMC Costs/Savings	<u>-0-</u>	<u>1,824.7</u>
Total Government Costs	<u>-0-</u>	<u>433.9</u>

COMPARATIVE SYSTEM COSTS

(\$ Million)

	<u>Current</u>	<u>Taxable</u> (Tentative Costs)
II. <u>Special Pays, Total</u>	<u>733.3</u>	<u>827.5</u>
(a) Aviation Career Incentive Pay	<u>192.6</u>	<u>173.4</u>
(b) Continuation Pay, Nuclear Officer	<u>1.7</u>	<u>1.6</u>
(c) Physicians and Dentists Pay	<u>47.0</u>	<u>42.3</u>
(d) Veterinarian and Optometrist Pay	<u>1.5</u>	<u>-0-</u>
(e) Medical Officers Var. Inc. Pay	<u>66.4</u>	<u>59.8</u>
(f) Continuation Pay, Phys. & Dent.	<u>17.8</u>	<u>16.1</u>
(g) Responsibility Pay	<u>-0-</u>	<u>-0-</u>
(h) Sea Pay	<u>28.4</u>	<u>28.4</u>
(i) Certain Places Pay	<u>32.3</u>	<u>3.2</u>
(j) Diving Duty Pay	<u>3.6</u>	<u>7.0</u>
(k) Enlistment Bonus	<u>28.5</u>	<u>30.0</u>
(l) Reenlistment Bonus (including Nuclear Reenlistment bonus)	<u>275.0</u>	<u>429.2</u>
(m) Proficiency Pay	<u>38.5</u>	<u>36.5</u>
III. <u>Incentive Pay, Hazardous Duty, Total</u>	<u>79.5</u>	<u>79.5</u>
(a) Flying Duty Pay, Total	<u>30.6</u>	<u>30.6</u>
Crew Member, Enlisted	<u>25.4</u>	<u>25.4</u>
Non-crew Member	<u>5.2</u>	<u>5.2</u>
(b) Submarine Duty Pay	<u>25.4</u>	<u>25.4</u>
(c) Parachute Jumping Pay	<u>21.1</u>	<u>21.1</u>
(d) Demolition Pay	<u>2.4</u>	<u>2.4</u>

COMPARATIVE SYSTEM COSTS

(\$ Million)

	<u>Current</u>	<u>Taxable</u> (Tentative Costs)
IV. <u>Retirement Pay Cost Accrual</u>	<u>4,570.0</u>	<u>3,626.9</u>
V. <u>Health Care(patient care) System</u>	<u>3,889.9</u>	<u>3,889.9</u>
VI. <u>Reimbursements</u>	<u>1,901.1</u>	<u>2,237.2</u>
Station Allowances Overseas, Total	<u>194.9</u>	<u>237.6</u>
(1) Cost of Living	<u>72.2</u>	<u>151.7</u>
(2) Housing	<u>90.3</u>	<u>63.2</u>
(3) Temporary Lodging	<u>32.4</u>	<u>22.7</u>
Family Separation Allowance, Total	<u>37.2</u>	<u>40.4</u>
(1) On PCS, no government qtrs.	<u>5.1</u>	<u>8.3</u>
(2) On PCS, dependents not author.	<u>17.2</u>	<u>17.2</u>
(3) Afloat	<u>8.6</u>	<u>8.6</u>
(4) On TDY	<u>6.3</u>	<u>6.3</u>
PCS Travel Costs	<u>1,669.0</u>	<u>1,879.1</u>
Variable Housing Allowance	<u>-0-</u>	<u>80.1</u>
VII. <u>Terminal Leave Pay</u>	<u>285.7</u>	<u>236.7</u>
VIII. <u>Severance Pays, Total</u> (includes Lump Sum Readjustment pay, Disability Severance Pay, and Non-Promotion Severance Pay)	<u>65.8</u>	<u>76.0</u>
IX. <u>Reserve Basic Pays</u>	<u>1,335.2</u>	<u>1,335.2</u>
X. <u>Cadet and Midshipman Pay</u>	<u>65.9</u>	<u>61.1</u>
<u>TOTAL SYSTEM COSTS (Recurring)</u>	<u>32,751.7</u>	<u>34,020.0</u>
<u>TOTAL SYSTEM COSTS (Conversion)</u>	<u>-0-</u>	<u>311.4</u>

TOTAL MILITARY COMPENSATION

ASSESSMENT METHODS

**A Staff Research Paper
Prepared For
The Third Quadrennial Review
Of Military Compensation**

20 January 1977

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QUADRENNIAL REVIEW OF MILITARY COMPENSATION

STAFF RESEARCH PAPER

TOTAL MILITARY COMPENSATION ASSESSEMENT METHODS

I. Purpose. To present a methodology for comparing military and Civil Service pay and benefits. Comparable pay, the first level of comparability, is set based on established work level linkages at selected enlisted and officer grades. Military Equivalent of Salary (MES) paylines are drawn based on work level linkages to establish comparable pay. The methodology is illustrated in separate staff studies in the modernized pay and allowances system. Comparable benefits, the second level of comparability is set on an aggregate comparison methodology.

II. Compensation Trends and Design. Compensation trends in the benefits area are especially important because that area in the private sector is so dynamic. Upward trends in the private sector are indicated by compensation statistics. The Chamber of Commerce does a survey of 761 companies of which 152 have been reporting fringe benefit data since 1955. They indicate that benefit payments have risen from 22.7% of payroll in 1955 to 40.3% by 1975. The full significance of that increase can't be judged on the basis of those percentages because salaries and wages are growing rapidly too. In terms of cents per payroll hour, benefit costs increased from 46.7 cents in 1955 to 230.9 cents in 1975 -- a 394 percent increase in 20 years.¹ Because of these trends a decision to simply "hold the line" on military benefits without assessing their relationship to civilian sector benefits could ultimately result in an inability to attract and retain the right numbers and quality of people.

¹ "Employee Benefits 1975", the Chamber of Commerce of the United States of America, 1976, p. 27.

While the expansion of benefits continues, indications are that employers in both the public and private sectors are beginning to take a closer look at benefit costs, especially health care and retirement programs. Much publicity has occurred during the past year over public employee retirement costs at all levels of government. A growing number of state governments are initiating or considering action to withdraw from the Federal Social Security program. The financial crisis in New York best demonstrates the general concern to control personnel costs. Increases in health care costs have also brought this important benefit under study. One of the points of discussion in recent contract negotiations in the auto industry was employee contributions to health care. The result of efforts to curtail growth of benefits is dependent on the reaction of organized employees, employer resolve, and the market place at large.

Efforts to contain personnel costs are also evident within the Federal government. The Defense Manpower Commission concluded that total compensation should be considered in adjusting pays.¹ The President's Panel on Federal Compensation also concluded that the principle of comparability should be extended to include benefits as well as pay.² In the past few years DoD has proposed and in many cases implemented numerous manpower cost saving initiatives. Interestingly, while high level management has been making efforts to contain manpower costs, military personnel have made a major outcry about erosion of benefits.

1 Report to the President and the Congress of the Defense Manpower Commission on, "Defense Manpower: the Keystone of National Security", April 1976. p. 312 and 346.

2 Report to the President of the President's Panel on Federal Compensation, December 1975. p. xi.

Thus, the makeup of the total compensation package requires attention. Employee groups in the private sector are bargaining for larger, more attractive benefit programs while employers are scrutinizing costs with increased awareness. Private sector trends seem to be that benefits, measured as a percent of payroll dollars, will continue to grow. The manpower management implications are that efforts to contain or curtail military benefits will be met with severe member reaction unless such actions are carefully considered and communicated effectively to the military force.

This paper will make illustrative fringe benefit comparisons with the Federal Civil Service (CS) compensation system. However, no implication should be drawn that the makeup of the benefit packages should be identical or that pays should be administered in the same way. On the contrary, compensation packages must clearly be tailored to meet the management and personnel needs of the individual force. A recent book on compensation makes this point:

Many companies must now regret having allowed their benefits programs to grow without clear purpose or design. Individual plans were often adopted on the basis of what the competitors had done rather than on the overall needs of the organization and its employees. Frequently the results were a hodge-podge of inappropriate, overlapping, inadequate, and excessive forms of coverage. Management which had learned the importance of setting objectives, planning, and integrating activities in the research, manufacturing, and marketing functions failed to apply the same techniques to the employee-benefits program.¹

1 Robert M. McCaffery, Managing the Employee Benefits Program, American Management Association, Inc., 1972.

Military service has no true parallel in the private sector. The compensation system -- including benefits -- must be responsive to that difference. For example the Civil Service health care benefit is purchased on a group plan basis from commercial providers, with a relatively small though significant direct care benefit. The military health care benefit on the other hand is largely provided from in-house capability because that capability must exist anyway, and because a large portion of the force is stationed overseas and at sea. The military leave system is also quite different from the CS leave program in that it is more liberal for junior members and it charges continuously for leave rather than just for "normal work-week" time off. The system is compatible with operational requirements. The military retirement system is specifically designed to support the personnel objective of a youthful military force and is, therefore, considerably different from most civilian old age pension systems. DoD has proposed a change to the retirement plan, the Retirement Modernization Act (RMA), to more effectively and equitably meet this objective.

III. Total Compensation Comparison Methodology. Benefit comparisons are limited by the reliability and accuracy of cost and value estimates. They are further limited by the degree to which the objectives of the two manpower systems differ. Comparisons of Civil Service salary and military equivalents of salary (MES) levels can be made with a reasonable degree of precision, and even on a pay grade and length of service basis if necessary. Benefit estimating methodologies, on the other hand, are not precise nor can the incidence of the benefit upon individual employees or members be determined accurately. These methodologies are especially difficult for deferred benefits because

the time value of money must be incorporated, future benefit levels must be predicted, and a whole series of contingent probabilities must be modeled. The private sector largely uses actuarial normal cost methodologies to estimate the cost of deferred benefits. The Civil Service Commission currently makes these estimates through Entry Age Normal methods, and the DoD has developed the capability to do so. These methods, as described in the Military Estate Benefits paper,¹ represent the current "state of the art". The accuracy with which each population can be modeled impacts on the confidence one can place on results. Accession, career progression, attrition and retirement practices differ dramatically in the two systems, reducing the symmetry of otherwise symmetrical estimates.²

The net result of these considerations is that valuations of salary-like elements of compensation have reasonable individual or pay grade precision; but valuations of fringe benefits have validity for the group at large only. Therefore, to make total compensation comparisons a two-level comparison approach is necessary.

The first level of comparison is pay--the basic salary or wage rate for the job. If pay is not competitive, it is highly likely that manpower needs will not be met. Competitive pay is a necessary condition. It is the entitlement the employee or member receives immediately; it satisfies near term needs; and it is easy for him to estimate. When people are asked what they make, they think in terms of pay per hour, the weekly pay check or their salary. Pay is an important determinant of both attraction and retention but probably the dominant factor for attraction of new employees or members.

¹ QRM Staff Research Paper, "Military Estate Benefits", 18 October 1976, Tab H.

² The effect of surges in force size to meet national military requirements, and of uncontrollable changes in benefit components such as the Social Security offset in the RMA proposal is also illustrated by discussions in the QRM Staff Research Papers, "Military Retirement Outlays", 2 April 1976 and "Social Security Integration with the Military Retirement System", 2 April 1976.

This then constitutes the first level of comparability. It is satisfied by establishing comparable salaries based upon work level relationships between specific grades in the systems being compared. Methods of achieving first level comparability under a salary system and modernized pays and allowances systems are discussed in separate staff research papers.¹

The second level of compensation comparison is fringe benefits. While the specific values of a benefits program are probably not of primary concern to a prospective or new employee entering a large structured personnel organization for semi-skilled or skilled work, the presence of the common elements of a benefit package are an essential accompaniment to a competitive wage for that wage to be effective. Benefits are not usually received immediately or are experienced intermittently; they usually satisfy long term needs; and their value to the individual may vary between members.² These characteristics may sound undesirable but their nature is not unlike the type of protection provided by insurance programs; the feature of pooled risk to avert major crises makes the program attractive to the group. QPMC Staff research has shown that generally speaking, military personnel tend to place a higher value on in kind and deferred or contingent benefits than the DoD cost of providing them.²

¹ See "Modernized Pay and Allowances System", "Modernized Taxable Pay and Allowances System", and "A Salary System of Military Pay".

² For a discussion of allocation methodologies for medical and retirement benefits see Tab C. Also see QPMC Staff Research Papers, "Allocation of Deferred Supplemental Benefits", 19 November 1975, and "Military Estate Benefits", 18 October 1976.

IV. Illustrative Comparisons of Fringe Benefits.

A. General: Benefit levels between the military and Civil Service compensation systems are compared. Two major sets of comparisons are developed to show the effects of compensation changes. The first comparison represents the compensation system as it existed in FY 1976. Valuations are derived from the total compensation comparison developed by the QRMC Staff from the staff research papers on compensation entitlements. The comparison paper is attached at Tab A for easy reference. The second set of comparisons represents the modernized pay and allowances system proposal of the QRMC. Abbreviated total compensation displays are at Tab B. The comparisons involve these considerations:

- The major benefits to be included in the comparisons are military estate benefits; medical care; life insurance; annual leave; holidays; and medical absence.

- Regarding military estate benefits, the "entry age" normal cost valuation method was chosen to achieve reasonable symmetry with the Civil Service benefit, which is a system partially funded on the "entry age" normal basis. This method attributes values to individuals on an equal percentage of pay over the whole force. Other methods such as the "unit credit" normal cost method attribute values to individuals with somewhat greater weighting of the probability of going to retirement. The use of such

methods is attractive in personnel systems managed on an "up-or-out" basis like the military. The choice has great significance in achieving member credibility and in implementing the DoD proposal to go to accrual budgeting for all federal retirement programs.¹

- Regarding medical care, considerable difficulty was experienced in determining what portion of patient care should be included in the comparison. A compromise position was to include the low end of a range of estimates, using Health Maintenance Organization (HMO) premiums for providing similar health care based on military patient care costs. Medical compensation costs or values above this amount were to be included as an institutional benefit whose purpose is described below.

- A military factor of two types exists and should be explicitly recognized in the compensation system but outside the total compensation comparison base. The first type is a general military liability experienced by all in varying degrees and is to be rewarded by the continuation at current levels of the military institutional benefits -- commissaries, exchanges, the medical care value in excess of the compensation value included in the comparison base and possibly some nonappropriated fund recreation activities. The second type of military factor impacts on specific groups and is compensated by a system of special and incentive pays.

1

See Tab C and the QPMC Staff Research Paper, "Military Estate Benefits", 18 October 1976.

- The modernized military pays and allowances system is adopted. Basic pay is the main reward for work or duty performed, quarters and subsistence allowances will be nontaxable and set to defray average off post expenditures in each military grade for shelter and food. The result will be comparability but not exact parity between regular military compensation (RMC) and Civil Service basic salary.

- The comparability standard adopted is the standard based on General Schedule grades nearest the selected military linkage grades of E-3, E-7, O-2 and O-5.

- The Uniformed Services Retirement Modernization Act (RMA) is enacted.

B. Appropriate Measures for Fringe Benefit Comparison: A review of compensation publications dealing with fringe benefit measurement indicates that fringe benefit cents per payroll¹ dollar (percent of payroll) is the most common method for measurement. Two ratios are most commonly used in the private sector:

I - Total Benefits: Total Salary

II - Total Benefits: Salary less absence time.

We have added a third ratio:

III - Benefits less absence time: Total Salary, which is the reverse of II and evaluates only those benefits outside of salary.

¹ The terms pay and payroll are used in a generic sense to mean salary-like items. Salary refers to an hourly, monthly, or annual base salary or wage rate; it does not include premium pays such as overtime pay, uncommon tours of duty differential, holiday pay, etc. This is consistent with our understanding of how the CS is approaching total compensation setting. Fringe benefits refer to retirement and survivor benefits, health care, life insurance, and absences (annual leave, holidays, and medical absence). Absences are unique in that they are both fringe benefits and part of the salary rate.

ILLUSTRATIVE RELATIONSHIPS OF THE COMPONENTS OF COMPENSATION

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When these three ratios are applied to military compensation, Military Equivalent of Salary (MES) plus the salary-like types of special and incentive pays such as Aviation Career Incentive Pay, Enlistment Bonuses, and Reenlistment Bonuses are used as the equivalent of civilian basic salary. These pays are included in salary comparisons because they are normally a part of the basic salary scale in private sector and CS employment.¹ Some, however, will wish to use MES -- synonymous with Regular Military Compensation -- as salary for purposes of these comparisons because it is common to all members, while the special salary payments are unique to subsets of the military population. Both approaches are illustrated here so the three ratios just defined are expanded to six for measuring military fringe benefits. They are:

IA	-	Total Benefits:	Total Salary
IB	-	Total Benefits:	MES
IIA	-	Total Benefits:	Total Salary less absences
IIB	-	Total Benefits:	MES less absences
IIIA	-	Benefits less absences:	Total Salary
IIIB	-	Benefits less absences:	MES

These ratios are diagrammed in Figure 1 to clarify their relationships.

Ratios IA and IB are total benefits to total pay - They can be criticized because absences are double counted. The overlap does exist since the absence benefit is, in fact, part of salary or MES, but these ratios are commonly used in compensation publications to measure benefit levels.

¹ Staff paper on Total Compensation Comparisons, included in this paper as Tab A.

Ratios IIA and IIB, total benefits to pay less absences, are also used in compensation publications to measure benefit levels, but to a lesser extent than ratios IA and IB. In these instances, absences are not double counted. Neither set of ratios, I's or II's, have any notable advantages over the other.

Ratios IIIA and IIIB, Benefits less absences to total pay, are not commonly used. Their value is that they measure only the fringe benefits which are outside of salary or MES. They are also the reverse of ratios IIA and IIB.

Other ratios might be developed, but no further purpose would be served to do so in this analysis.

C. Comparison of Current Fringe Benefit Packages: Values for benefits as a proportion of pay are:

Table 1

Fringe Benefit Cents Per Payroll Dollar:

<u>Type of Ratio</u>	<u>CS</u>	<u>Military</u>
IA Benefits to Total Salary	41	44
IB Benefits to MES	41	45
IIA Benefits to Salary Less Absence	49	48
IIB Benefits to MES Less Absence	49	50
IIIA Benefits Less Absence to Salary	25	34
IIIB Benefits Less Absence to MES	25	35

The first pair of ratios indicates that in the current pay and allowances system the military benefit package is a little "too generous".

The second pair compares benefits to pay for "time worked". On this basis, the military benefit package looks "about right".

The last pair suggests that if absences were abolished or prohibited in both systems the military benefit package would then be better than the CS package.

The second and third pair of ratios indicate that at today's levels of military leave usage, the military leave benefit is not as valuable as the CS leave benefit.

D. Comparison of Revised Fringe Benefit Packages: Changes in the compensation system can significantly alter the compensation mix. In the CS compensation system, the elimination of the 1% kicker from the CPI adjustment process has resulted in a decrease in the normal cost of the retirement benefit. For the military compensation system, elimination of the 1% kicker has also reduced the normal cost of the retirement benefit. The Modernized Pays and Allowances System proposed by the QRMC bases quarters and subsistence allowances on the costs of those items to military

personnel, and uses work level linkages with General Schedule grades for a comparability standard. Under that system basic pay levels are lower; quarters and subsistence allowances are higher; and the normal cost of retired pay decreases significantly because of the proposed retirement modernization coupled with lower basic pay levels. The aggregate compensation value of pay and benefits with these changes in the Civil Service and military compensation systems are shown in Tab B.¹

1 The figures for both the CS and military in Tab B are based on more current pay scales than those in Tab A. The QPMC Staff Research Papers on fringe benefits, which estimated compensation values and are described in detail in Tab A, were prepared using FY76 data which was the most current at that time. This FY76 data contained the military pay scales of October 1974. The Staff Research Papers which studied structural changes to the military compensation system were done subsequent to the military pay raises which occurred in October 1975. Since it was necessary to use the most current pay scales in examining changes to the military compensation system, the October 1975 military pay scales were used in these Staff Research Papers. Therefore, the figures in Tab B are not directly comparable to those in Tab A.

Table 2

Fringe Benefit Cents Per Payroll Dollar:

<u>Type of Ratio</u>	<u>CS</u>	<u>Military</u>
IA Benefits to Total Salary	36	34
IB Benefits to MES	36	35
IIA Benefits to Salary Less Absence	43	37
IIB Benefits to MES Less Absence	43	38
IIIA Benefits Less Absence to Salary	21	24
IIIB Benefits Less Absence to MES	21	25

On the basis of the first two pairs of ratios, the military benefit package in the modernized pays and allowances system will be slightly less than the Civil Service benefit package. However, one other aspect of this comparison requires discussion. A change in the size of the "payroll" in relation to benefits can change these ratios significantly. This is important because the MES levels in the modernized pays and allowances system are at comparability with, but not identical to, CS salary. For example, aggregate comparable MES is \$23,462.5 million (Tab B). Had MES levels been set to be strictly equal to CS salaries at the linkage grades, aggregate MES would be \$21,769.2 million.¹ The comparison rates would then be as follows:

¹ The QRM Staff Research Papers on Variable Housing Allowance, The Military Factor, and Modernized Pays and Allowances System demonstrated that military personnel spend more for housing than do their civilian counter-parts thus requiring higher MES levels to be comparable. The fact that MES levels should be higher than CS salaries to account for housing costs may not justify higher fringe benefit levels. The use of a VHA could avert this effect in this system of setting benefit levels in a total compensation comparability process.

Table 3

<u>Fringe Benefit Cents Per Payroll Dollar:</u>			
<u>Type Ratio</u>		<u>CS</u>	<u>Military</u>
IA	Benefits to Total Salary	36¢	36¢
IB	Benefits to MES	36¢	38¢
IIA	Benefits to Salary Less Absences	43¢	40¢
IIB	Benefits to MES Less Absences	43¢	42¢
IIIA	Benefits Less Absence to Salary	21¢	27¢
IIIB	Benefits Less Absence to MES	21¢	28¢

The first pair of ratios indicates that the military benefit level is about right.

The second pair shows that the military benefit package would then be too low. This also shows that the value of military leave is less than CS leave relative to pay.¹

The last pair of ratios show as they did in the comparison of the present system that if all absences were abolished in both systems the military fringe benefit package would then be better than the CS package.

¹ The value of military leave was based on an historical annual usage of 22.2 days of the 30 day entitlement each year. This value could shift significantly in the next few years because of recent legislation reducing the level of reimbursement for unused leave. It seems likely that more leave will be used in the future -- especially by enlisted personnel who can no longer "cash in" unused leave at the end of each enlistment.

On balance, then, it appears that a guarded judgment that benefit levels are about right may be appropriate. The appropriateness of the judgment is based on the premise that the ratios in Table 3 -- resulting from the special case of parity RMC -- is acceptable for comparing benefit levels. Ratio I is virtually equal from the final comparison. Ratio II is low for military and Ratio III is high. The different outcomes have much to do with the value of leave and the appropriateness of using comparable or equal MES as the ratio comparison base. Further, each ratio comparison sheds light on overall appropriateness of the benefit level.

THIRD QUADRENNIAL REVIEW OF MILITARY COMPENSATION

Staff Research Paper

Total Military Compensation Assessment Methods

VI. Conclusions:

- Current employee needs are satisfied by current pay. Long term needs such as estate planning and security are satisfied largely through fringe benefits. Both must be reflected in a competitive compensation system.
- It is essential that comparable pay rates be set if the compensation system is to be competitive in attracting and retaining the numbers and quality of people needed in the military force.
- Pay comparisons can be made in a relatively precise way, and estimates can be stated on a pay cell-by-pay cell basis.
- Fringe benefit comparison methodologies are less precise and value estimates cannot be accurately applied on an individual basis. Therefore, such estimates should be stated for the group at large, and comparisons made in the aggregate.
- Fringe benefit comparisons in the aggregate are too imprecise to identify or set true parity even though the measure used may indicate parity.
- The appropriate mix of pay and benefits within total compensation can be determined by the two level comparison.

- Total compensation in a comparability-based system should be set using a two level comparison.

- Three different commonly used bases of benefit comparison produce different results. No one measure is necessarily more correct than the others. The setting of the correct level of benefits in the total compensation comparability system still requires value judgment.

- Under the proposed modernized pays and allowances system the military major benefit package will have been reduced significantly.

- Simple adjustment of the pay component in a total compensation system will produce unintended and possibly undesirable effects on the level of the benefit elements which are based on them.

- Within the comparability process, independent internal assessment of the appropriateness of the level of individual benefits to their intended purposes must be made.

- A quantitative comparison of military and Civil Service fringe benefits cannot stand alone as a basis for setting benefit levels. A careful assessment of private sector trends and troop reactions, and recognition of the limits of precision in fringe benefit measurement are probably more important. The comparison becomes a part of a broader frame of reference within which changes are considered.

VII. Recommendations:

- Adopt the two-level comparison for adjusting total military compensation.

- Adopt a comparability based pay setting process to ensure competitiveness of military basic equivalent salary levels.
- Adopt an aggregate benefit to pay ratio comparison process for a quantitative, comparative frame of reference within which military major benefit levels are set.

27 August 1975
Rev. 27 December, 1976
Rev. 20 January, 1977

QUADRENNIAL REVIEW OF MILITARY COMPENSATION

TOTAL COMPENSATION COMPARISONS FOR MILITARY AND FEDERAL CIVIL SERVICE

These displays were prepared by the QRMC Staff to illustrate comparison of military and federal civil service total compensation. They are intended to provide a frame of reference in which to view the compensation costing decisions being developed by the QRMC Staff.

The basis for the military estimates is the President's FY 1976 budget.

These comparisons display all elements of military compensation. However, in Total Compensation Comparability work currently in progress in the Civil Service Commission, it appears that practical comparisons with the civilian sector may only be achieved for the six major civil service fringe benefits. Therefore, Total Compensation comparisons are made primarily on these six benefits and their military equivalent.

The terms used are consistent with the QRMC working definitions, with Title 37 U.S.C., and with the usage in the OMB series, "Man-Years and Personnel Costs Executive Branch" from which the civilian terms were extracted.

- Appendix I Comparison of Total Military Compensation and Total Civil Service Compensation
- Appendix II Comparative Total Military Compensation
- Appendix III Comparative Federal Civil Service Total Compensation
- Appendix IV Description of Terms

THIRD QUADRENNIAL REVIEW OF MILITARY COMPENSATION

PERCENTAGE COMPARISONS OF TOTAL MILITARY COMPENSATION AND TOTAL CIVIL SERVICE COMPENSATION

Comparison of Salary and Major Fringe Benefits

	<u>Federal Civil Service</u> ^{1/}	<u>Military Compensation</u> ^{2/}
I. Total Salary Payments	68	68
II. Major Fringe Benefits	32	32
Total Compensation Comparison	<u>100.0</u>	<u>100.0</u>

Comparison of Salary and All Benefits

	<u>Federal Civil Service</u> ^{1/}	<u>Military Compensation</u> ^{2/}
I. Total Salary Payment	64	65
II. Major Fringe Benefits	31	31
III. Premium Pays	4	2
IV. Other Compensation Benefits	2	2
Total	<u>100.0</u>	<u>100.0</u>

^{1/} Data based on FY 1975 Man-Years and Personnel Cost Report by
OMB 18 Dec 1975.

^{2/} Data and estimates based on FY 1976 DoD portion of the President's
budget.

Note: Totals may not add due to rounding.

TOTAL MILITARY COMPENSATION DISPLAY
EY 1976 BUDGET ESTIMATE
(\$ MILLIONS)

ELEMENT	COST		VALUE	
	\$ AMOUNT	% OF TOTAL	\$ AMOUNT	% OF TOTAL
A. SALARY PAYMENTS				
BASIC PAY	<u>15518.9</u>	51.	<u>15518.9</u>	51.
SUBSISTENCE (TOTAL)	<u>1783.9</u>	6.	<u>1783.9</u>	6.
BAS	1059.4		1059.4	
IN KIND	724.5		724.5	
QUARTERS (TOTAL)	<u>2915.9</u>	10.	<u>2915.9</u>	10.
BAG	1786.0		1786.0	
IN KIND-FAMILY HOUSING	938.6		938.6	
IN KIND-BACHELOR HOUSING	191.3		191.3	
FEDERAL TAX ADVANTAGE	<u>1120.7</u>	4.	<u>1120.7</u>	4.
MILITARY EQUIVALENT SALARY	21339.4	70.	21339.4	70.
LESS MILITARY ABSENCES	<u>2106.0</u>	7.	<u>2106.0</u>	7.
BASIC SALARY PAYMENTS	19233.4	63.	19233.4	63.
SPECIAL SALARY PAYMENTS	<u>662.7</u>	2.	<u>662.7</u>	2.
TOTAL SALARY PAYMENTS	19896.1	65.	19896.1	65.
B. MAJOR COMPENSATION BENEFITS				
MILITARY ESTATE TOTAL 1/	<u>6047.0</u>	20.	<u>6047.0</u>	20.
RETIREMENT ANNUITY	4939.6		4939.6	
SUPVIVOR BENEFIT PROGRAM	117.0		117.0	
SOCIAL SECURITY OLD AGE				
BENEFIT 2/	734.8		734.8	
DEATH GRATUITY	9.1		9.1	
D.I.C. 3/	246.5		246.5	
HEALTH CARE	1025.0	3.	1178.0	4.
HEALTH CARE ACCRUAL 1/	402.0	1.	315.0	1.
ANNUAL LEAVE TAKEN	1371.9	4.	1371.9	4.
MEDICAL ABSENCES	362.6	1.	362.6	1.
HOLIDAYS	<u>371.5</u>	1.	<u>371.5</u>	1.
TOTAL MAJOR COMP BENEFITS	9580.0	31.	9646.0	32.
C. PREMIUM PAY (ATTACHMENT 2)	502.7	2.	502.7	2.
D. OTHER COMPENSATION BENEFITS				
COMMISSARY AND EXCHANGE 4/	188.7		188.7	
SEPARATION AND SEVERANCE PAY	122.4		122.4	
UNEMPLOYMENT COMPENSATION	194.6		194.6	
EDUCATION ASSISTANCE	22.2		22.2	
FHA MORTGAGE INSURANCE	3.1		3.1	
GI BILL HOUSING	<u>0.7</u>		<u>0.7</u>	
TOTAL OTHER COMP BENEFITS	531.7	2.	531.7	2.
E. TOTAL COMPENSATION	30510.5	100.	30576.5	100.

Footnotes

General Note: To the extent possible, these data are based on man-years and dollar estimates from the President's Budget for FY 1976. There are exceptions in the case of certain in kind entitlements and deferred benefits for which QRMC staff research papers document the methodologies used in making these estimates.

a. The in kind housing estimates are based on actual costs for FY 1975 and are based on cost recovery rates as described in that research paper.

b. Deferred benefits are represented as present values not current year disbursements. For Death Gratuity only, present value was treated as equal to disbursements: a normal cost concept was not required because the one time payment is immediate.

c. Because of the range of uncertainty in the compensation value of the health care benefit, a compromise position was developed. The lower end of a range of estimates of compensation value, based on Health Maintenance Organization (HMO) premium, represented by the costs of providing health care to military beneficiaries is used within the comparison base. The difference between this value and the value approximated by the Civil Service health insurance premiums for a plan similar to the military health care benefit for military beneficiaries is included in the institutional benefit package for recognition of the military factor.

<u>Item</u>	<u>Compensation Comparison Base Value</u>	<u>Approximate Military Factor Value</u>	<u>Approximate Total Compensation Value</u>
Current Compensation	1,178	752	1,930
Deferred Compensation	<u>182</u>	<u>490</u>	<u>672</u>
Totals	1,360	1,242	2,602

d. Commissary and exchange estimates were based on actual costs for FY 1975.

Footnotes Cont'd

- 1 Normal costs are based on one of the sets of economic assumptions of the CSC Board of Actuaries: (a) 6% interest rate; (b) 3% pay growth; and (c) 4% CPI growth which results in a retired pay growth of 5.2%.
- 2 Government FICA contribution less the Medicare portion.
- 3 Present value based on one year term insurance premium to buy that coverage.
- 4 The consumption advantage is the benefit that military personnel receives from shopping in a commissary or exchange.
The consumption advantage or value to the member results from four aspects of these operations: Appropriated Fund Subsidy; Limited Service/Operating Standards; Co-op Nature of Operation; and Minimal Profit Policy. The latter three elements are found in both the public and private sectors to a varying degree. Consumption advantage produced by these three elements is not normally considered compensation in the private or public sectors. In addition, the consumption advantage of exchanges is depressed by markup policies to generate profit to supply funds to Military Welfare and Recreation program. In FY 1975 this amounted to \$93 million. The appropriated fund support of the two systems (the compensation cost) is therefore treated as a proxy for the compensation advantage value attributable to that appropriated fund cost.

<u>Item</u>	<u>Compensation Cost and Value</u>	<u>Range * of Consumption Advantage</u>
Commissary	\$125.4	\$424.8 - 490.5
Exchange	8.6	605.0 - 804.8
Comm/Exch - Accrual	<u>54.7</u>	<u>312.4 - 384.0</u>
	\$188.7	\$1,342.2 - 1,679.3

* Uncertainty due to lack of precision in available data on DoD savings in COLA costs from overseas commissaries and exchanges.

SPECIAL SALARY PAYMENTS
(\$Millions)

<u>Element</u>	<u>Cost</u>	<u>Value</u>
Aviation Career Incentive Pay	\$204.0	\$204.0
Special Pay (Health Profession)	118.3	118.3
Continuation Pay (Nuclear)	4.1	4.1
Reenlistment Bonus	217.7	217.7
Enlistment Bonus	75.5	75.5
Proficiency Pay (SDA)	42.3	42.3
Other Special Pays	<u>.8</u>	<u>.8</u>
Total Special Salary Payments	\$662.7	\$662.7

Attachment 1

PREMIUM PAYS
(\$Millions)

<u>Element</u>	<u>Cost</u>	<u>Value</u>
Fly Pay (Crew & Non-Crew)	\$ 33.2	\$ 33.2
Submarine Duty Pay	24.6	24.6
Parachute Pay	20.6	20.6
Sea Pay	29.1	29.1
Duty at Certain Places	32.4	32.4
Diving Duty Pay	4.0	4.0
Demolition Duty Pay	2.5	2.5
Other Premium Pays	6.3	6.3
Pay for Unused Accrued Leave ¹	<u>350.0</u>	<u>350.0</u>
Total Premium Pays	\$502.7	\$502.7

¹

Public Law 93-381, enacted 14 July 1976, places enlisted accrued leave payments on the same basis as officers, but terminates all payments for BAQ and BAS, except for a saved pay provision, effective 31 August 1976. Cost and value estimates can be developed when implementing rules are completed.

NON-COMPENSATION BENEFITS (NB) DISPLAY¹
(\$ MILLIONS)

<u>Item</u>	<u>Cost</u>
Medical Care (Servicemember) ²	\$1,396.0
Medical Care (Retirement), Disability Associated ²	44.0
Recruiter Allowance	4.2
Dislocation Allowance	55.5
Survivor Benefit	
a. Member Contribution	Offset to SBP
b. Social Security	Offset to SBP
Home Owner Assistance Program	0.0
SGLI (Extra Hazard Premium)	0.0
Clothing Issues and Maintenance Allowance	308.2
Personal Money Allowance	.2
Retirement (Accruals--Percent of Disability)	336.8
Family Separation Allowance Type I	4.6

¹ Items considered by the QRMC but classified as not compensation. The list includes "benefits" of kinds treated as "benefits" but not "compensation" by some civilian employers. In addition, it includes reimbursement-type items and personnel related cost items which neither private sector employers nor the Civil Service Commission treat as "benefits".

² Representation of initial Study Group position that "on the job" health care is not compensation.

Cost of Living Allowance	75.0
Station Housing Allowance	87.1
Temporary Lodging Allowance	33.8
Temporary Lodging Facility/Quarters	Data Not Available
Separation Travel and Transportation Allowance	265.5
Enlisted Aides	4.5
Education Assistance (Service Related) ¹	6,874.1
Education Assistance (Non-Service Related)	5.9
GI Bill Education (In-Service)	106.7
GI Bill Education (Post-Service)	<u>Data Not Available</u>
Total	\$9,602.1

¹

Includes: Recruit Training	\$1,290.2
Officer Acquisition Training	357.7
Specialized Skill Training	3,552.2
Flight Training	1,154.1
Professional Development Education	<u>519.9</u>
Total	\$6,874.1

FEDERAL CIVIL SERVICE
TOTAL COMPENSATION DISPLAY
FY 1975 Agency Costs

	<u>Cost and Value</u> <u>(\$ Millions)</u>	<u>Percent</u> <u>of Total</u>
I. Basic Salary Payments	\$36,345.4	
Less Absences	(5,943.1)	
Total Basic Salary Payments	30,402.3	64
II. Major Compensation Benefits		
Estate Program (Attachment)	8,218.9	17
Health Insurance ¹	758.5	2
Health Insurance Accrual	Data Not Available	
Annual Leave Used	3,395.3	7
Holidays Taken	1,204.3	3
Medical Absences	1,343.5	3
Total Major Compensation Benefits	14,920.5	31
III. Premium Pays Total (Attachment)	1,935.8	4
IV. Other Compensation Benefits		
Federal Employment Compensation Act	184.7	< 1
Unemployment Compensation ²	Data Not Available	
Suggestion/Superior Performance Awards	23.5	< 1
Education Assistance ²	Data Not Available	
Commissary and Exchange Benefits ³	Data Not Available	
Other Benefits ³	353.6	< 1
Total Other Benefits	561.8	1
Total I thru IV	<u>\$47,820.4</u>	<u>100</u>

1. Does not include direct health care benefits, which are not treated as compensation by Civil Service Commission.
2. Data not available; not treated as compensation by Civil Service Commission.
3. Use of military commissaries and exchanges, generally overseas, and embassy stores not treated as compensation by Civil Service Commission.
4. Includes Relocation expenses (real estate fees, house hunting trips, etc.) Special Welfare plans, Contribution to host country social security plans for non-citizen U.S. employees, and Postal Service contributions, etc.

CIVIL SERVICE ESTATE PROGRAM

<u>Item</u>	<u>Cost (\$ Million)</u>
Retirement Annuity ¹	\$7,901.5
Severance Pay (Included in retirement annuity)	-0-
Survivor Benefit Program (included in retirement annuity)	-0-
Social Security Retirement Annuity ²	95.5
Life Insurance	<u>221.9</u>
Total	\$8,218.9

CIVIL SERVICE PREMIUM PAYS
(\$ Millions)

Overtime	\$1,174.9
Holiday Pay	164.5
Sunday Pay	135.8
Nightwork	237.3
Hazardous Duty	31.8
Post Differential	31.9
All Other	<u>159.6</u>
Total Premium Pays	\$1,935.8

¹ 28.7% x basic salaries minus 7% employee contribution. Normal costs based on (a) 6% Interest Rate; (b) 3% Pay Growth and (c) 4% CPI Growth which results in a retired pay growth of 5.2%.

Source: Fifty-Second Annual Report of the Board of Actuaries of the Civil Service Retirement System. House Doc 94-203, July 8, 1975, p9.

² Government FICA contribution

Total Military Compensation Display

Description of Terms

Allowance	An indirect or contingent remuneration which may or may or may not be earned, and which is sometimes in the nature of compensation and sometimes in the nature of reimbursement.
Annual Leave Used	The portion of accrued annual leave used by military personnel.
Aviation Career Incentive	Payment to regular and reserve officers who hold, or are in training leading to, an aeronautical rating or designation and who engage and remain in aviation service on a career basis. This is an incentive pay.
BAQ (Basic Allowance for Quarters)	Allowance to which military personnel on active duty and drawing basic pay are entitled except when Government quarters are provided. The amount is determined by dependency status.
BAS (Basic Allowance for Subsistence)	Allowance to which all officers, commissioned and warrant, on active duty and drawing basic pay are entitled, and which is authorized to enlisted members when a Government mess is not available or when permission is granted to mess separately.
Basic Pay	Principal element of military compensation paid to all military personnel, with amount determined by grade and total years of service. It is payment for services rendered or time worked.

Basic Salary Payments

The total of basic pay, BAQ, EAS and tax advantage less the RMC value of annual leave taken, holidays taken, and medical absence.

Commissary Subsidy

That proportion of appropriated fund support for commissaries which results in a consumption advantage to military personnel.

Continuation Pay (Nuclear)

Payment and bonus to nuclear-qualified Naval officers and enlisted member for agreement to continue on active duty. This is an incentive pay.

Death Gratuity

Payment to assist survivors of active duty service members with immediate unforeseen expenses caused by the death of the member.

Demolition Pay

Payment to military personnel involved in the demolition of explosives as a primary duty or in training for that duty. This is an incentive pay for hazardous duty.

DIC (Dependency and Indemnity Compensation)

payment to provide one year term insurance type protection of all survivors of men killed in the service of their country and to insure protection of the member and survivors after separation from the service in cases where service-connected disabilities have impaired insurability.

Diving Duty Pay

Pay to military personnel assigned by order to the duty of diving. This is an incentive pay.

Duty at Certain Places	Pay to military personnel while on duty at designated places outside the 48 contiguous States and the District of Columbia.
Enlistment Bonus	Payment to enlisted members who enlist or extend their initial period of active duty in a designated skill to a total of at least four years.
Family Separation Allowance	Allowance authorized to military personnel to reimburse extra expenses incurred as a result of separation from his family.
FICA (Federal Insurance Contributions Act)	Employers contribution to FICA taxes.
Flight Pay (Crew & Non-Crew)	Payment to enlisted crew members and to officer and enlisted non-crew members involved in aerial flight. This is an incentive pay for hazardous duty.
Fringe Benefit	A financial advantage to a service member which is a compensation item and is provided as an addition to the military equivalent of civilian salary or wages and to special or premium pays. A specific fringe benefit is not necessarily received by or even available to all service members.
Health Care	Compensation portion of "Medical Care" program for Active Duty members and their dependents. See Medical Care definition below.
Health Care Accrual	Present group value of deferred compensation portion of "Medical Care" program for active duty members and their dependents after they retire.
Holidays Taken	The portion of Federal holidays taken by military personnel.
Hospital and Medical Insurance (FICA)	This portion of FICA taxes attributed to Medicare for the aged. Other health programs are, however, actually funded from the program, including Black Lung, Kidney Dialysis and Kidney Transplant programs.

Life Insurance Items	Sum of items which provide life insurance protection for service member dependents, i. e., SGLI, DIC, and Death Gratuity.
Medical Absence	The days absent from work by military personnel for medical reasons.
Medical Care	Medical care for military personnel, dependents, and retired personnel in military facilities and under the CHAMPUS plan.
Military Estate Program	Sum of Retirement Annuity, SBP, Death Gratuity, DIC and SGLI (currently no cost to the Government).
Non-Compensation Benefit	The sum of advantages to a service member or dependent which, when available, is not an item of compensation, but is provided due to a moral or other obligation of the Government. The total includes uniform allowances, overseas allowances, family separation allowances, and personal money allowances.
Other Premium Pays	The sum of self-propelled submersible duty pay, leprosy duty pay, pressure chamber duty pay, acceleration or deceleration experimental duty pay, thermal stress duty pay, and carrier flight deck duty pay. These are incentive pays for hazardous duty.
Other Separation Pays	Includes MLA-KIA leave pay and separation donations to enlisted members. MIA-KIA leave pay is separately accounted for because members in missing status are allowed to accumulate more leave than active duty members, who are limited to 60 days at the end of each fiscal year.

Other Special Pays	Includes a special pay not otherwise accounted for. Currently includes only hostile fire pay.
Overseas Allowances	Non-compensation benefit paid to military personnel which result from being stationed outside the United States. Includes Housing and Cost-of-Living Allowance, Interim Housing Allowance, Temporary Lodging Allowance, and Evacuation Allowance Payable to Dependents.
Parachute Pay	Payment to military personnel involved in parachute jumping as an essential part of military duty. This is an incentive pay for hazardous duty.
Pay for Unused Accrued Leave	Payment to military personnel upon separation from military service for the unused accrued annual leave.
Personal Money Allowance	Allowance to O-9 and O-10 officers to partially reimburse unusual personal expenses incurred in the performance of their official duties.
Proficiency Pay (SDA)	Payment to enlisted personnel in certain special duty assignments outside their normal career field.
Quarters in Kind	Quarters provided by the Government, to those who do not receive full BAQ under the current compensation system.
Readjustment Pay	Payment to members of the Reserve Components who are involuntarily released from active duty after having completed at least 5 years of continuous active duty.
Reenlistment Bonus (Selective)	Payment to enlisted members upon reenlistment in designated critical military skills.

Regular Military
Compensation

The total of the following elements of compensation that a member of a uniformed service accrues or receives, directly or indirectly, in cash or in kind every payday: basic pay, basic allowance for quarters, basic allowance for subsistence, and Federal income tax advantage accruing to the aforementioned allowances because they are not subject to Federal income tax.

Retirement Annuity

Normal cost of retirement benefits based on economic assumptions shown.

Sea Pay

Payment to enlisted members while on sea duty.

Severance Pay

Payments to Regular officers separated for non-promotion, unsatisfactory performance, or reductions-in-force and payments to service members separated because of disability, but having less than 30% disability.

SGLI (Hazard Premium)
(Servicemen's Group Life
Insurance)

Government payment of any extra hazard on SGLI. Nothing is budgeted for FY-1976.

Social Security (FICA)

That portion of FICA taxes attributed to Social Security.

Special Pays

Taxable cash pays that depend on special occupational qualifications or duty performance, either special salary pays or premium pays.

Special Pay (Health Professionals)	Payments and bonuses to medical officers (physicians, optometrists, dentists, and veterinarians). This includes special pay for physicians, dentists, optometrists, and veterinarians; continuation pay for physicians and dentists; and variable incentive bonus for physicians who execute active duty agreements.
Special Salary Payments	The special pay portion of certain service member's pay which would be included in the salary of a comparable civilian doing the same job.
Submarine Duty Pay	Payment to officer and enlisted submarine crew members. This is an incentive pay for hazardous duty.
Subsistence In Kind	Food provided in Government messes to those who do not receive BAS under the current compensation system.
Survivor Benefit Program (SBP)	Present group value of privilege of electing SBP coverage for survivors during retirement years. Value is net of retired member's contributions to the plan.
Tax Advantage	Estimate of Federal income tax advantage accruing to service member because BAQ and BAS are not subject to Federal income tax. Computed as the amount of money which must be added to a member's pay to yield to the member the same "take-home-pay" under the assumption that all portions (base pay, BAQ, BAS, and tax advantage) of the member's pay is subject to Federal income tax.
Total Salary Payments	Sum total of basic and special salary payments.
Unemployment Compensation	Reimbursements to individual states for unemployment compensation payments they make to ex-service members.

TOTAL COMPENSATION COMPARISONS FOR MILITARY AND FEDERAL CIVIL SERVICE

These abbreviated displays reflect actual and proposed changes to the military and civil service compensation systems. The retirement annuity amount is changed in both the CS and military displays to reflect the recent change in law which replaced the 1% kicker in the CPI adjustment process to retired pay with a semiannual adjustment.

The military display presents total compensation under a modernized pays and allowances system.

Appendix I Abbreviated Total Military Compensation

Appendix II Abbreviated Federal CS Total Compensation

ABBREVIATED
TOTAL MILITARY COMPENSATION DISPLAY FOR
MODERNIZED PAYS AND ALLOWANCES SYSTEM
(\$ Millions)

<u>Element</u>	<u>Dollars</u>
A. Salary Payments	
Basic Pay	13,543.5
Subsistence	2,822.5
Quarters	5,110.7
Federal Tax Advantage	<u>1,985.8</u>
Military Equivalent Salary	23,462.5
Less Military Absences	<u>2,278.8</u>
Basic Salary Payments	21,183.7
Special Salary Payments	<u>680.2</u>
Total Salary Payments	21,863.9
B. Major Compensation Benefits	
Military Estate Program	4,248.4
Health Care	1,312.3 ^{1/}
Health Care Accrual	342.0 ^{2/}
Annual Leave Taken	1,487.2
Medical Absences	390.8
Holidays	<u>400.8</u>
Total Major Compensation Benefits	8,181.5

1/ The Compensation Value of Health Care for FY 77 was estimated by applying the percentage increase which occurred in overall Health System costs from FY 76 to FY 77. (Health Care System costs increased from \$3.492B in FY 76 to \$3.889B in FY 77 or 11.4%. Therefore, the compensation value of Health Care in FY 76 (\$1.178B -- See TAB A) was increased by 11.4% to derive estimate of \$1.312B in FY 77.

2/ Reflects estimated FY 77 health care costs.

ABBREVIATED
TOTAL CS COMPENSATION DISPLAY WITH
REVISED CPI ADJUSTMENT TO RETIRED PAY

<u>Element</u>	<u>Dollars</u>
A. Basic Salary Payments	39,354.4
Less Absences	<u>6,053.2</u>
Total Basic Salary Payments	33,301.2
 B. Major Compensation Benefits	
Estate Program ¹	7,284.7
Health Insurance ²	1,009.6
Health Insurance Accrued	Data Not Available
Absences	<u>6,053.2</u>
Total Major Compensation Benefits	14,347.5

¹ The retirement annuity portion decreased from \$8,555.6M to \$6,887.0M due to replacement of the 1% kicker in the CPI adjustment process to retired pay.

² Does not include direct health care benefits, which are not treated as compensation by the Civil Service Commission.

VARIABILITY IN ESTIMATES OF DEFERRED BENEFIT VALUE

A. General. This paper explores medical and estate benefit valuations thus showing why precision is limited at best and breaks down as smaller and smaller subsets of a population have values estimated for them. The following contrast between pay and benefit dollars provides some points to keep in mind as the rest of this paper is read.

Contrasting "Pay" Dollars and "Benefit" Dollars

<u>Pay Dollars</u>	<u>Benefit Dollars</u>
Immediate payment	Deferred, requiring use of present value techniques to measure time preference for money
Time preference for money is not a factor	Time preference for money varies by age, income, and education. It also varies among individuals in any of these categories
Satisfies recurring short-term needs	Satisfies intermittent long-term needs
Uniform payments by pay cell	Value received varies widely among individuals within a pay cell
Payment is certain	Receipt is based on contingent probabilities
Individual precision	Group averages
Accurate	Modeling uncertainty which can't be predicted with reliability

B. Medical Care.

1. Military - considerable difficulty was experienced in developing a method that had general acceptance. The low end of a range of estimates, using Health Maintenance Organization (HMO) premiums based on DoD costs of providing military medical care, was adopted for use in the total compensation comparison base. The result was a current health care value of \$1,178 million and a deferred value of \$315 million. Proration on a pay grade basis could be accomplished in several ways all of which have critical simplifying assumptions. The methods are:

a. Current Health Care - the \$1,178 M aggregate value could be prorated to individuals two ways:

	I		II
	<u>Single</u>	<u>Married</u>	<u>Overall</u>
Member only	\$ 188	\$ 188	\$ 188
Member's dependents	<u>-</u>	<u>\$ 664</u>	<u>\$ 375</u>
Total	\$ 188	\$ 852	\$ 563

The Overall method is weighted by the percentage of the force that is married. Therefore, \$563 is the average value for current health care for all members. That number would not have much credibility for a particular pay grade, however, because the percentage of those having dependents varies significantly by pay grade. Using weighted averages for a particular pay grade would still produce a valuation that looks too high for bachelors and too low for married. Finally, because the benefit is not optionally purchased at the discretion of the individual, as it is in the Civil Service, the values are also too high for those who are healthy and too low for those most infirm.

b. Deferred Health Care - A present value for promised health care in retirement contingent upon achieving retirement has to be calculated using actuarial techniques. Some aspects of this program are discussed later.¹ The health care accrual for one year is \$315 M. This accrual divided by the number on active duty with less than 20 years of service yields a per capita benefit of \$158 per year. Since the entire benefit is earned in 20 years, nothing is prorated to those with over 20 years of service.

In addition to the complexities of present value determination, attribution to the individual active duty member has the same complexities and problems of credibility or appropriateness as described for the current benefit. Further, because the probability of continuing to retirement increases as service years increase the value for new entrants can be viewed as too high and for those approaching 20 years of service too low.

2. Civil Service - the government contributes \$1,009.6 million of the health insurance premiums of those actively employed. These costs are borne by the employing agency, and the amount actually contributed to each employee depends on his personal decision on whether or not to take the benefit, what level of benefit to take, whether to take single or family coverage and what insurance company to use. Annuitants also receive the same type discretionary benefit, but the government cost is borne by the CSC rather than the employing agency.

¹ Fuller discussion of achieved valuation techniques and allocation to individuals is in the QPMC Staff Research Papers "Military Estate Benefits," 18 October 1976, "Health Care Benefit Compensation Cost," 12 September 1975 (Rev 19 Mar 1976), and "Allocation of Deferred Supplemental Benefits," 19 November 1975.

a. Current Value - in FY 1976 the value of the current benefit for active employees could range from nothing if coverage was not elected to the high option family plan. Based on the total number employed, the Overall average value was \$407/year. This amount will not have much credibility because it will be too low for many and too high for many others, depending on individual pay grade, salary, longevity and marital status. For instance, a female, GS-2, could be married to a privately employed business man who earns \$50,000 per year. She could elect the high option family plan for her family. Conversely, a GS-18 may decide to not elect coverage at all. The \$407 per capita value is thus only an approximation for the force at large. Finally, civil servants have a direct care, in-kind health care benefit which, while not used uniformly over the work force, is significant. No data is available on its cost, and the Civil Service Commission does not treat it as compensation. Thus, any approximation based on the insurance program will be low.

b. Deferred Value - the Civil Service Commission has estimated that the current average cost per participating annuitant is \$440 per year and that 95% of eligible annuitants participate. The CSC has not calculated a present value of this deferred benefit for an active employee, and this part of the medical benefit is not included in their current calculations of total compensation. The present value of this benefit would probably be less than \$50 per year.

3. Summary of Medical Care Valuations - Comparisons using these valuations are not symmetrical. The CS health insurance benefit is based on optional coverage and has a definite dollar value that is visible to

those who elect it. The military in-kind medical benefit is available regardless of member election, and imposed upon the active member himself, and the actual value to a member is determined by the state of his and his family's health. For the current medical benefit, a different military benefit value can be estimated by pay grade based on family size, but, on the CS side, only a per capita value for the group at large is determinable. For the deferred medical benefit, a methodology does not exist for estimating a present value for CS while two methods are available for the military. In short, precision is lacking in stating the value of the medical care benefit at the pay grade level.

C. Estate Items.

Most of the attention in QRMC Study Group deliberations and in research papers on deferred benefits was directed toward selecting the most appropriate actuarial technique and economic assumptions for calculating present values of deferred benefits which could be used in making comparisons. The "Entry Age Normal" technique was chosen because it is widely used, it is used by the CSC, and reasonable methodological symmetry could be achieved in comparing the military and civil service benefits.¹

1

Other normal cost methods, such as the "unit credit" method, may more appropriately represent the present value by year of service in the military "up-or-out" personnel management system because it attributes proportionally lesser values to early years and greater values to later years of service. The QRMC Staff was unable to surmount problems of symmetrical modeling for the Civil Service or private sector. The selection of such a normal cost methodology would have great significance in the DoD proposed accrual budgeting scheme, particularly if the retirement systems affected were actually funded.

The question of economic assumptions resolves reasonably well by insuring that identical assumptions are used in all comparative analysis. It is reiterated that any method of expressing contingent deferred benefits is less than perfect when viewed from an individual's point of view. These considerations were described in the Staff Research Paper on Estate Benefits, and include different time preferences for money and different likelihoods of continuing to retirement.¹ These considerations loom large but the question of precision of valuations between military and Civil Service for purposes of comparison also requires discussion.

2. Modeling Considerations - the valuation result from the "entry age normal" technique is a "normal cost percentage" which when applied to basic pay yields the present value of the retirement or other deferred benefit. This calculation is highly sensitive to the pattern of normal pay progression during a career and general pay raise assumptions. Pay raise assumptions are included in the economic assumptions so that aspect of the problem need not be discussed here. Normal pay progression for military and Civil Service forces requires amplification.

If one assumes the same lifetime retirement payout and the same lifetime active earnings, a front-loaded and a back-loaded basic pay progression over a career will yield different normal cost percentages and therefore different present values. A front-loaded basic pay progression in which pay rates are relatively high in the early years, will yield a lower normal cost than a back-loaded progression in which the early year

¹ QRC Staff Research Paper, "Military Estate Benefits" 18 October 1976.

earnings are relatively lower. This will be true because the early year contributions to a "retirement fund" can accumulate more interest before they must be paid out as annuities than do contributions from the later years just before the payment begins. Stated another way, the steeper the normal payline over a career, the higher the normal cost percentages. One would expect the pattern of the normal military payline to be steeper than that of the normal CS payline. The military career has to be shorter and virtually all military personnel must enter the force at the bottom, while lateral entry into civil service employment is common and service to the end of a normal working life, 60 to 65 years, is permitted.

The current pattern of military basic pay growth associated with normal promotion and longevity increases for the military was modeled using an actual survey of personnel records by years of active military service to calculate average basic pay received for each year of service for both officers and enlisted.

For the basic salary growth of the civil service associated with normal promotion and step increases, the CSC Board of Actuaries judged that it could best be approximated by using a pattern of 2 to 2 1/2% increases in salary each year with the higher increases occurring in the early years of employment. If the military progression were stated in the same way, it would be an average percentage increase of 4.6% per year for enlisted personnel and 3.9% per year for officers over a 30 year career.¹

¹ See the discussion and diagrams in Appendix I of the QRMC Staff Research Paper "Military Estate Benefits," 18 October 1976.

If the modeling of the two pay progressions is in error by only 1/2 of 1 percent, the normal cost could easily swing by 12 to 20 percent. Thus, if the calculated normal cost percentage was 25% and if a salary were \$20,000, the present value of the retirement benefit would be estimated as \$5,000. However, if we are convinced that a .5% error in modeling the pay progression might have occurred, the benefit would be better represented as:

5,000 \pm \$600 to 1,000 or \$4,000 to \$6,000. This discussion is presented so that all recognize the extreme sensitivity of results to inputs from two diverse sources--military and civil service.

The influence of these payline considerations become even more evident as one considers alternative compensation systems which restructure basic pay. The modeling accuracy of retirement valuations probably would not change much if the entire basic pay table is shifted up or down in its present pattern. However, when the pattern of pay progression changes in a material way, the retirement valuation results are affected. For example, the staff performed two valuations of RMA, one under the current basic pay pattern and one which used the pay pattern for the modernized pays and allowances system.¹ The results were:

Normal Cost Percentage of Basic Pay of
RMA Under Two Basic Pay Patterns

	<u>Basic Pay Pattern</u>		<u>Percent Change</u>
	<u>Current</u>	<u>Mod Panel A</u>	
Enlisted	21.9%	20.00%	-8.7%
Officer	23.3	27.58	+18.4
All	22.3	22.45	-.7

¹ See QRM Staff Research Paper "Modernized Pay and Allowances System", 12 November 1976 (Rev 15 January 1977).